TA-P9000ES

SERVICE MANUAL

US Model
Canadian Model
AEP Model

Photo: gold type

SPECIFICATIONS

Audio section

Harmonic distortion

Less than 0.001%
(20 Hz ~ 20 kHz, at 1V (network A))

Frequency response

10 Hz ~ 100 kHz +0/–1.0 dB

Signal-to-noise ratio

115 dB (20 kHz LPF, A) *
* *1.3 V input level*

Inputs

Input Jacks	Sensitivity	Impedance
INPUT 1	150 mV	20 kilohms
INPUT 2	150 mV	20 kilohms
BYPASS 5.1ch	–	–
BYPASS 2ch	–	–

Outputs (PRE OUT)

Output Jack	Sensitivity	Impedance
FRONT L/R	1 V	100 ohms
CENTER	1 V	100 ohms
REAR L/R	1 V	100 ohms
WOOFER	1 V	100 ohms

General

Power requirements

120 V AC, 60Hz (US, Canadian models)
220 – 230 V AC, 50/60 Hz (AEP model)

Power consumption

20 W

Dimensions 17 × 5 × 15 3/8 in. (430 × 124 × 388 mm) including projecting parts and controls

Mass (Approx.)

21 lbs 3 oz (9.6 kg)

Supplied accessories

- Audio cord (3)
- Remote commander RM-P9000 (remote) (1)
- LR6 (size-AA) alkaline batteries (2)
- Control A1 connecting cord (1)

Design and specifications are subject to change without notice.

MULTICHANNEL PRE AMPLIFIER

MICROFILM

SONY®

TABLE OF CONTENTS

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

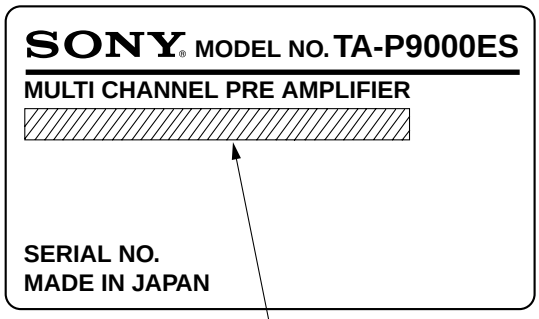
ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE ⚠ SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COMPOSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

SECTION 1
SERVICING NOTES

MODEL IDENTIFICATION

– Specification Label –



US, Canadian models : AC 120V 60Hz 20W
AEP model : AC 220 - 230V 50/60Hz 20W

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.
Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microampers.). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers’ instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)

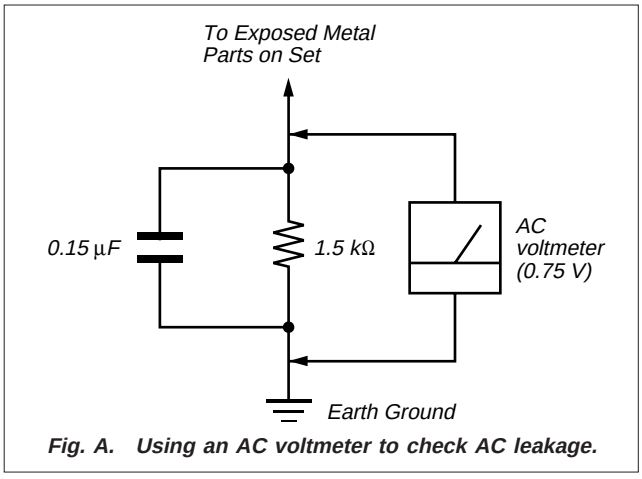
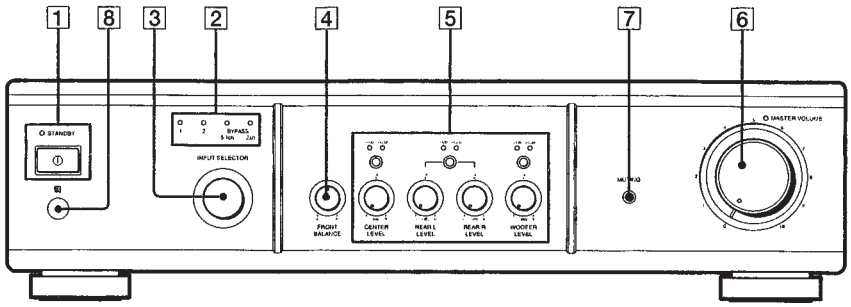


Fig. A. Using an AC voltmeter to check AC leakage.

SECTION 2
GENERAL

This section is extracted from instruction manual.

Front Panel Parts Description



1 ⏻ switch
Press to turn the pre amplifier on and off.

- Before you turn on the pre amplifier, make sure that you have turned the MASTER VOLUME control to the leftmost position to avoid damaging your speakers.

STANDBY indicator
Lights when the pre amplifier is turned off (standby mode) using the supplied remote. Blinks momentarily after ⏻ is pressed to turn the unit on, then goes out to indicate that the unit is ready.

2 Input indicators
Light to indicate the current input.

3 INPUT SELECTOR control
Turn to select the input you want to use.

To select	Turn to light
INPUT 1	1
INPUT 2	2
BYPASS 5.1ch	BYPASS 5.1ch*
BYPASS 2ch	BYPASS 2ch

After selecting the input, turn on the component(s) connected to the input you selected and play the program source.

* The audio signal input to the BYPASS 5.1ch jacks is output from the PRE OUT jacks even when this unit's power is turned off.

4 FRONT BALANCE control
Rotate to adjust the balance of the front speakers.

Note
When BYPASS 5.1ch or 2ch is selected, use the balance control on your control amplifier (Sony TA-E9000ES, etc.) to adjust the balance of the front speakers.

5 CENTER, REAR L, REAR R, WOOFER LEVEL controls
Rotate to adjust the center, rear, and woofer levels.

Gain buttons
Press repeatedly to select the gain as follows:
+6dB → +12dB → 0dB
Use to increase the level of the respective channel relative to the level of the front channels.

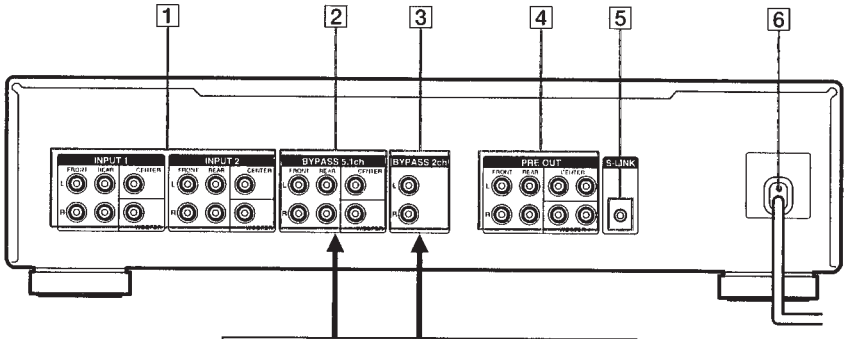
Gain indicators
The respective indicator lights when the gain is increased to +6dB or +12dB.

6 MASTER VOLUME control
Turn to adjust the volume when INPUT 1 or INPUT 2 is selected. The indicator on the MASTER VOLUME indicator lights to show that the volume can be adjusted. The indicator does not light and the volume cannot be adjusted when BYPASS 5.1ch or 2ch is selected.

7 MUTING button
Press to mute the sound. The indicator lights up when the sound is muted.

8 IR receptor
Receives signals emitted by the remote.

Rear Panel Parts Description



To prevent damage to your speakers, do not connect components whose volume cannot be controlled to the BYPASS 5.1ch or BYPASS 2ch jacks.
Audio signals input to the BYPASS 5.1ch or BYPASS 2ch jacks are not routed through this unit's MASTER VOLUME control. They are output at the same level they were input.

1 INPUT 1 and 2 jacks
Connect to the 5.1ch OUTPUT jacks on your DVD player or secondary multi channel decoder (etc.) (see page 7).

2 BYPASS 5.1ch jacks
Connect to the pre out jacks on a multi channel control amplifier (see page 5).
Signals input to the BYPASS 5.1ch jacks are output though the PRE OUT jacks (4) when the power is turned off.

3 BYPASS 2ch jacks
Connect to the pre out jacks on a stereo control amplifier (see page 7).

4 PRE OUT jacks
Connect to your power amplifier(s) (see page 6).

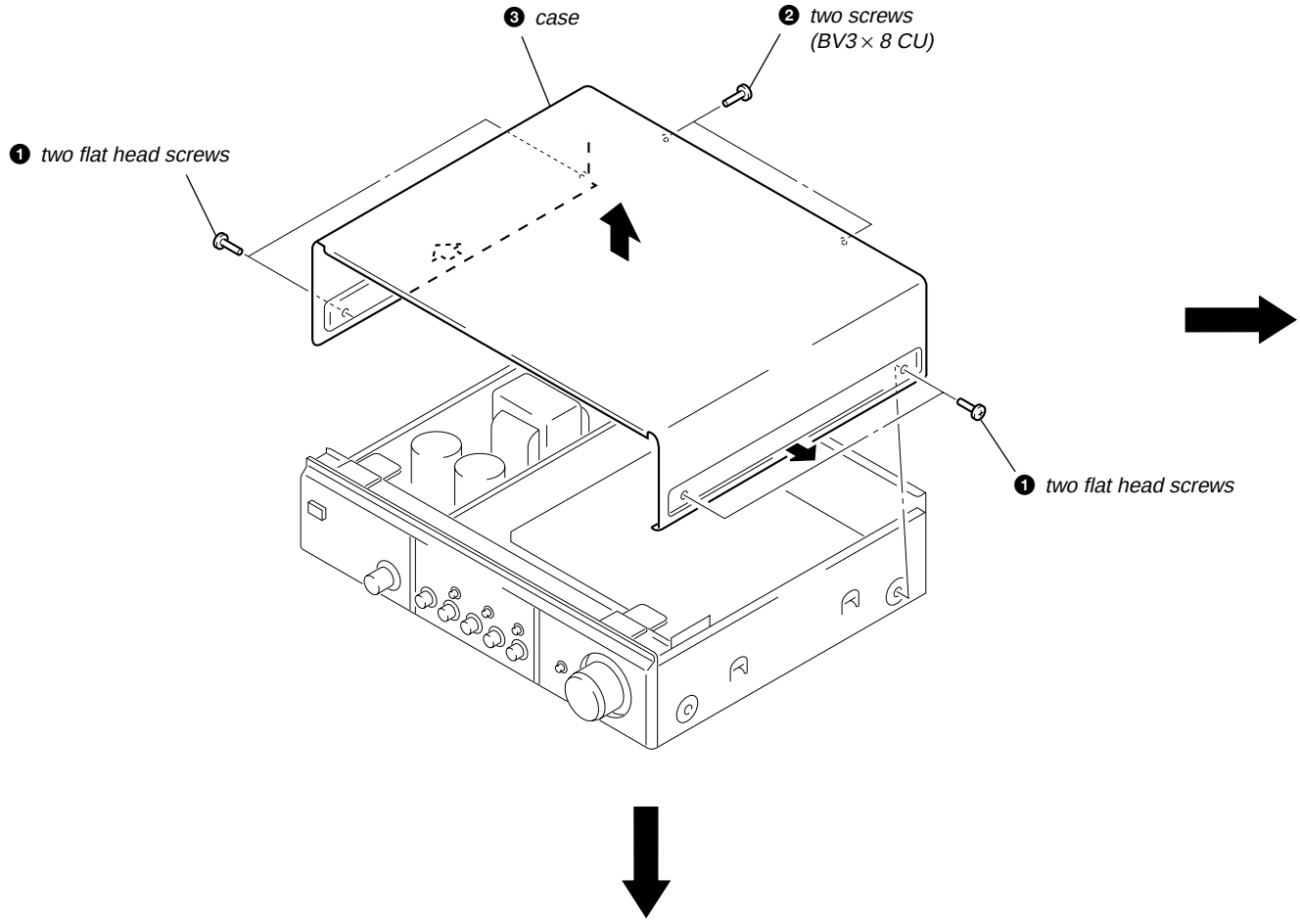
5 S-LINK jack
Use to turn the TA-N9000ES power amplifier on/off automatically whenever you turn this unit on/off using the supplied remote (see page 8).

6 AC power cord
Connect to a wall outlet.

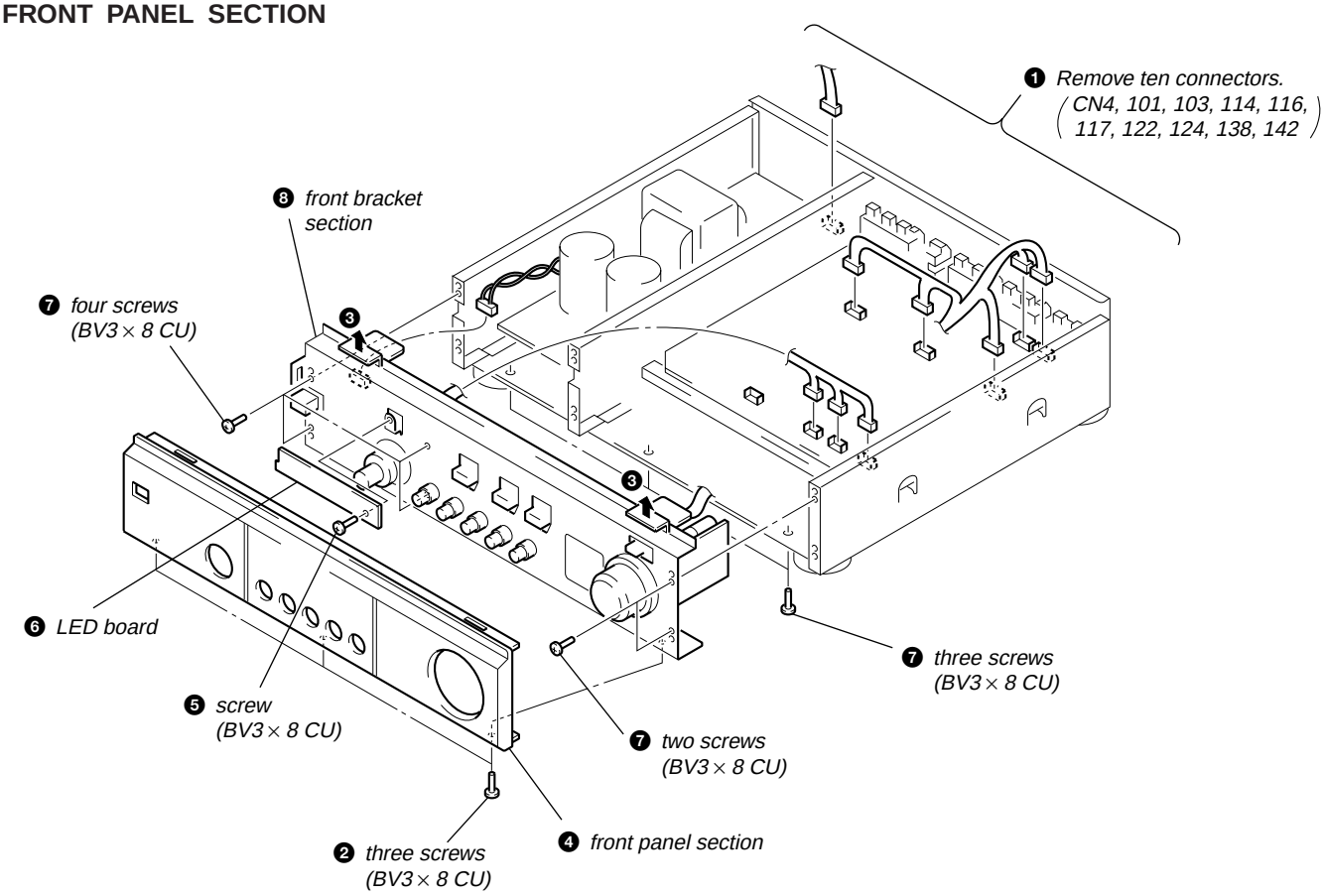
SECTION 3
DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

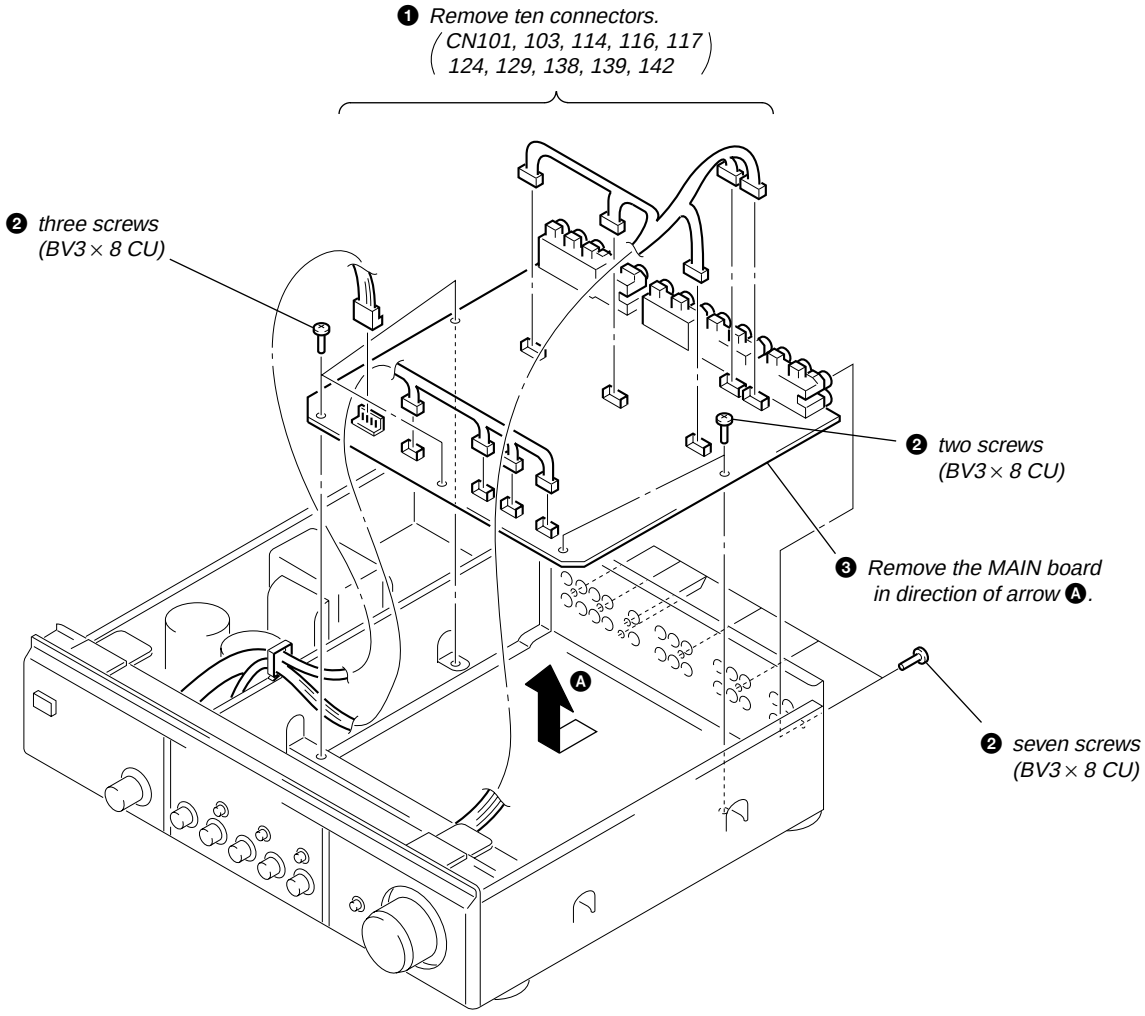
CASE



FRONT PANEL SECTION



MAIN BOARD


❶ Remove ten connectors.
(CN101, 103, 114, 116, 117
124, 129, 138, 139, 142)
❷ three screws
(BV3 × 8 CU)
❷ two screws
(BV3 × 8 CU)
❸ Remove the MAIN board
in direction of arrow Ⓐ.
Ⓐ
❷ seven screws
(BV3 × 8 CU)

SECTION 4
DIAGRAMS

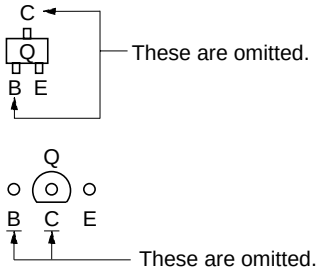
4-1. NOTE FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS

Note on Printed Wiring Board:

- ⚬——— : parts extracted from the component side.
- ▒▒▒▒ : Pattern from the side which enables seeing.

(The other layers' patterns are not indicated.)

- Indication of transistor.



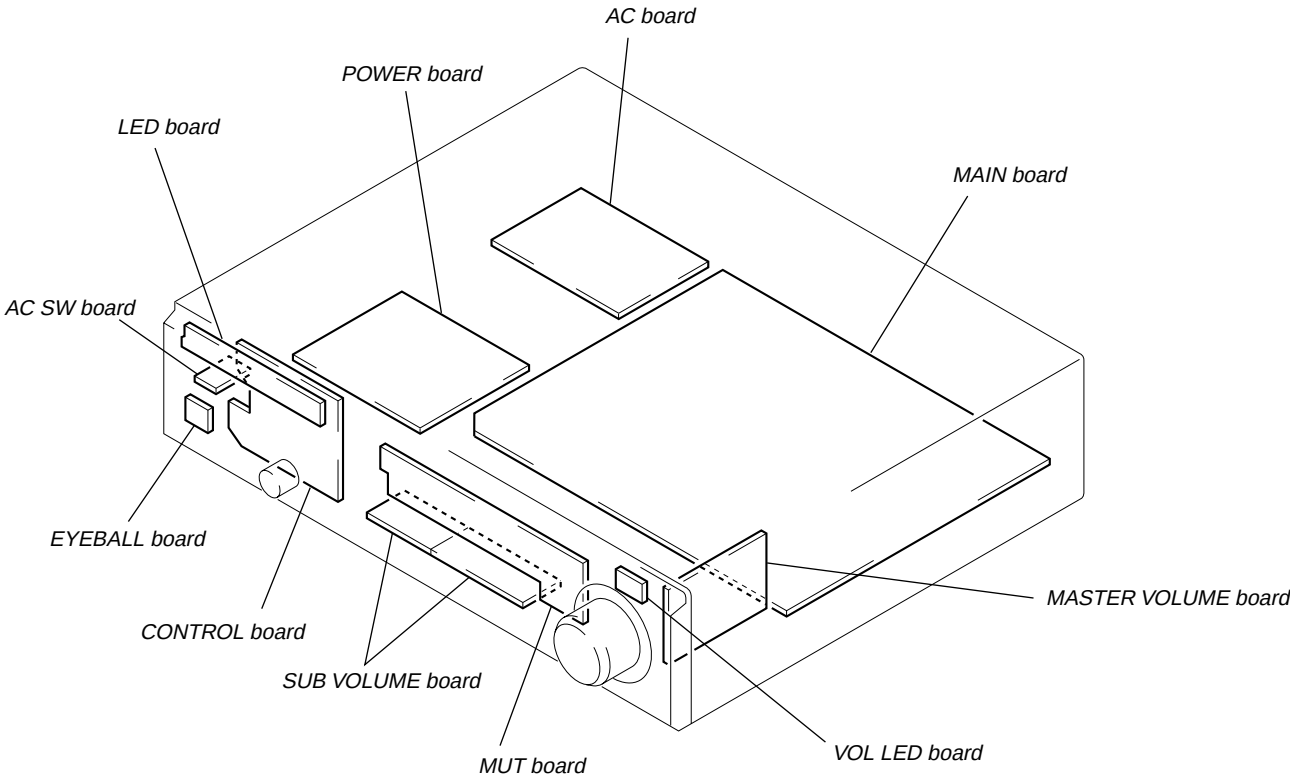
Note on Schematic Diagram:

- All capacitors are in µF unless otherwise noted. pF: µµF 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- : fusible resistor.
- : panel designation.

Note:	**Note:**
The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une piéce portant le numéro spécifié.

- **B +** : B+ Line.
- **B −** : B– Line.
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
- Voltages are taken with a VOM (Input impedance 10 MΩ). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
  ⇨ : AUDIO

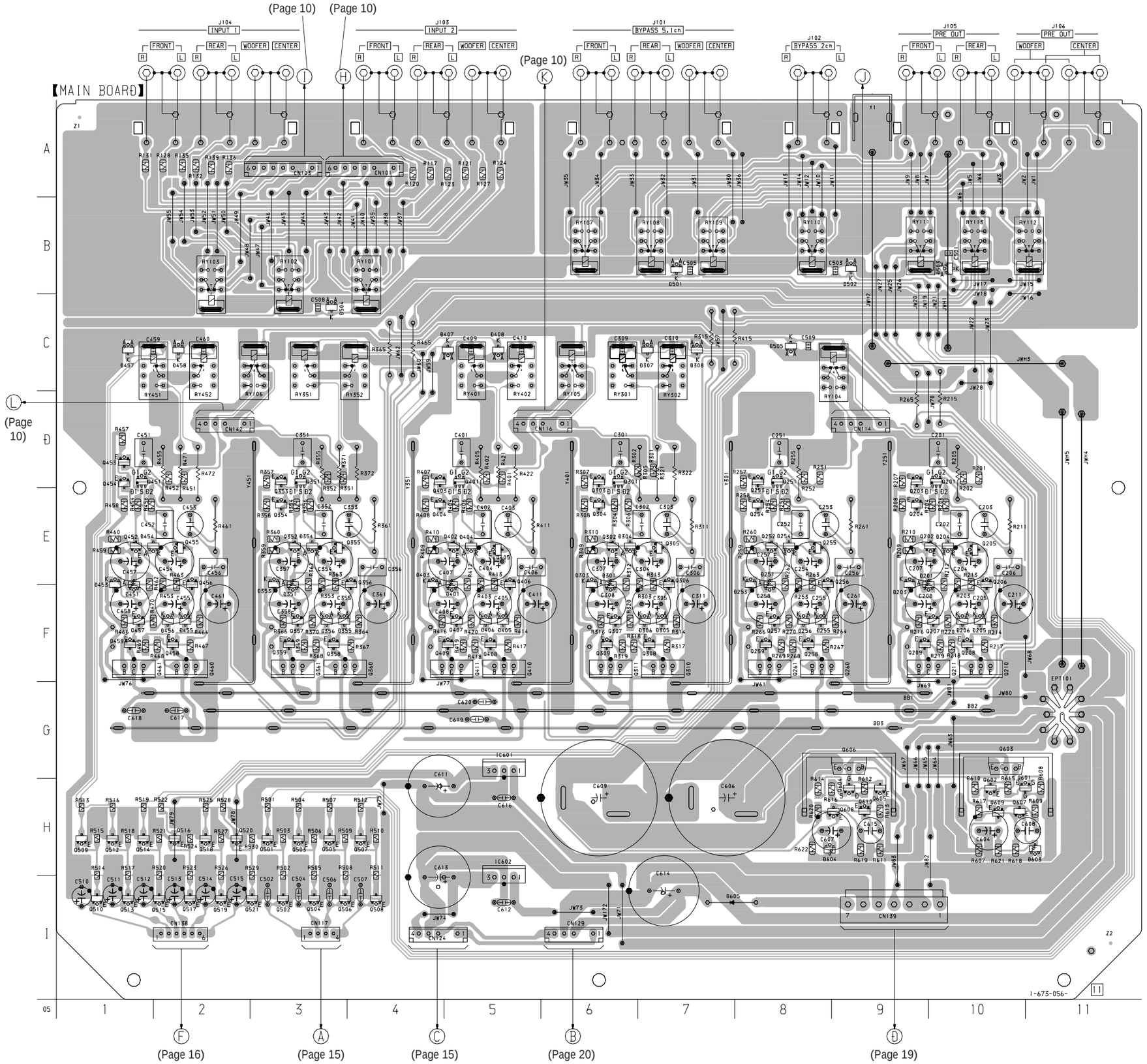
• **Circuit Boards Location**

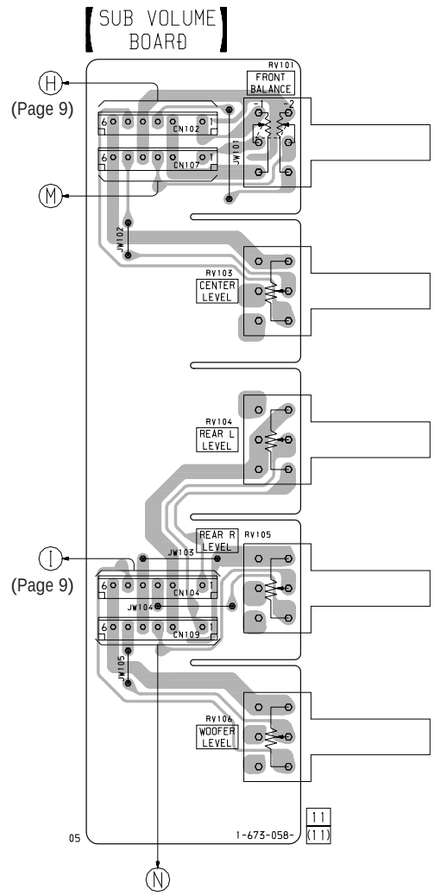


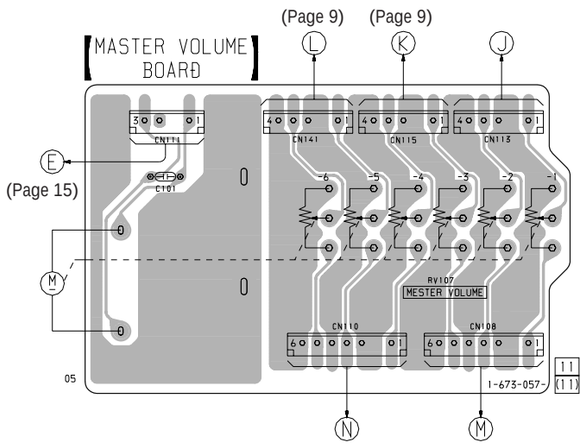
• **Semiconductor Location**

Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D201	E-9	D502	B-9	Q305	E-7	Q459	F-1
D203	F-9	D503	B-10	Q306	E-7	Q460	F-2
D204	E-10	D504	C-3	Q307	F-6	Q461	F-1
D205	F-10	D505	C-8	Q308	F-7	Q501	H-3
D206	F-10	D603	H-11	Q309	F-6	Q502	I-3
D251	E-8	D604	H-8	Q310	F-7	Q503	H-3
D253	E-8	D605	I-7	Q311	F-6	Q504	I-3
D254	E-8			Q351	D-3	Q505	H-3
D255	F-8	IC601	G-5	Q352	E-3	Q506	I-3
D256	F-8	IC602	H-5	Q353	D-3	Q507	H-4
D301	E-6			Q354	E-3	Q508	I-4
D303	E-6	Q201	D-10	Q355	E-3	Q509	H-1
D304	E-6	Q202	E-10	Q356	E-4	Q510	I-1
D305	F-7	Q203	D-9	Q357	F-3	Q512	H-1
D306	F-7	Q204	E-9	Q358	F-3	Q513	I-1
D307	C-7	Q205	E-10	Q359	F-3	Q514	H-1
D308	C-7	Q206	E-10	Q360	F-3	Q515	I-2
D351	F-3	Q207	F-10	Q361	F-3	Q516	H-2
D353	F-3	Q208	F-10	Q401	D-5	Q517	I-2
D354	E-3	Q209	F-9	Q402	E-5	Q518	H-2
D355	F-3	Q210	F-10	Q403	D-4	Q519	I-2
D356	F-3	Q211	F-9	Q404	E-4	Q520	H-2
D401	E-5	Q251	D-8	Q405	E-5	Q521	I-3
D403	E-4	Q252	E-8	Q406	E-5	Q601	H-10
D404	E-5	Q253	D-8	Q407	F-5	Q602	H-10
D405	F-5	Q254	E-8	Q408	F-5	Q603	G-10
D406	F-5	Q255	E-8	Q409	F-5	Q604	H-9
D407	C-5	Q256	E-8	Q410	F-5	Q605	H-9
D408	C-5	Q257	F-8	Q411	F-5	Q606	G-9
D451	F-1	Q258	F-8	Q451	D-1	Q607	H-10
D453	F-1	Q259	F-8	Q452	E-1	Q608	H-9
D454	E-1	Q260	F-8	Q453	D-1	Q609	H-10
D455	F-2	Q261	F-8	Q454	D-1	Q610	H-9
D456	F-2	Q301	D-6	Q455	E-2		
D457	C-1	Q302	E-6	Q456	E-2		
D458	C-2	Q303	D-6	Q457	F-1		
D501	B-7	Q304	E-6	Q458	F-2		

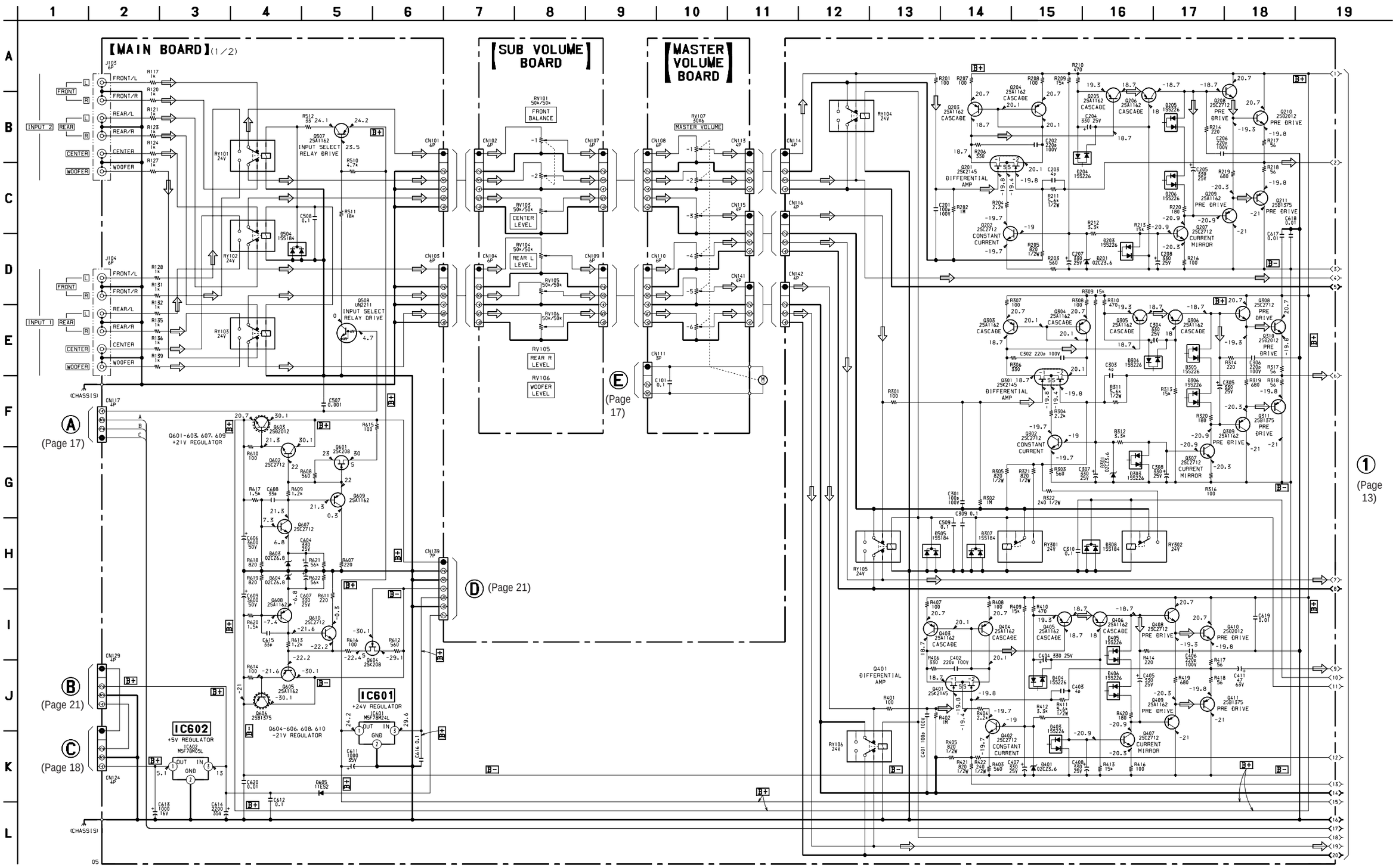
4-2. PRINTED WIRING BOARDS – MAIN Board/SUB VOLUME Board/MASTER VOLUME Board – • See page 8 for Circuit Boards Location.



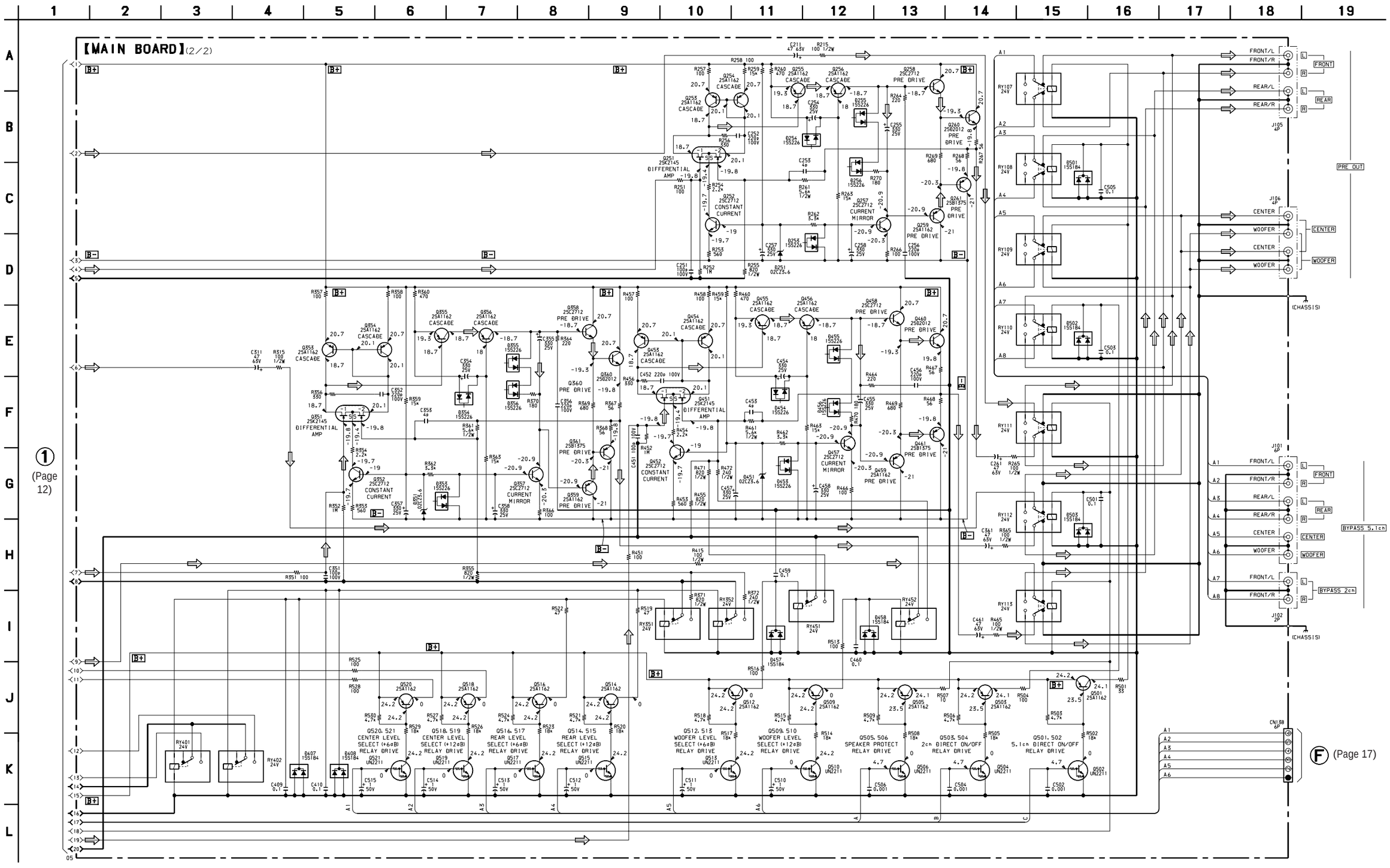




4-3. SCHEMATIC DIAGRAM – MAIN Board (1/2)/SUB VOLUME Board/MASTER VOLUME Board –



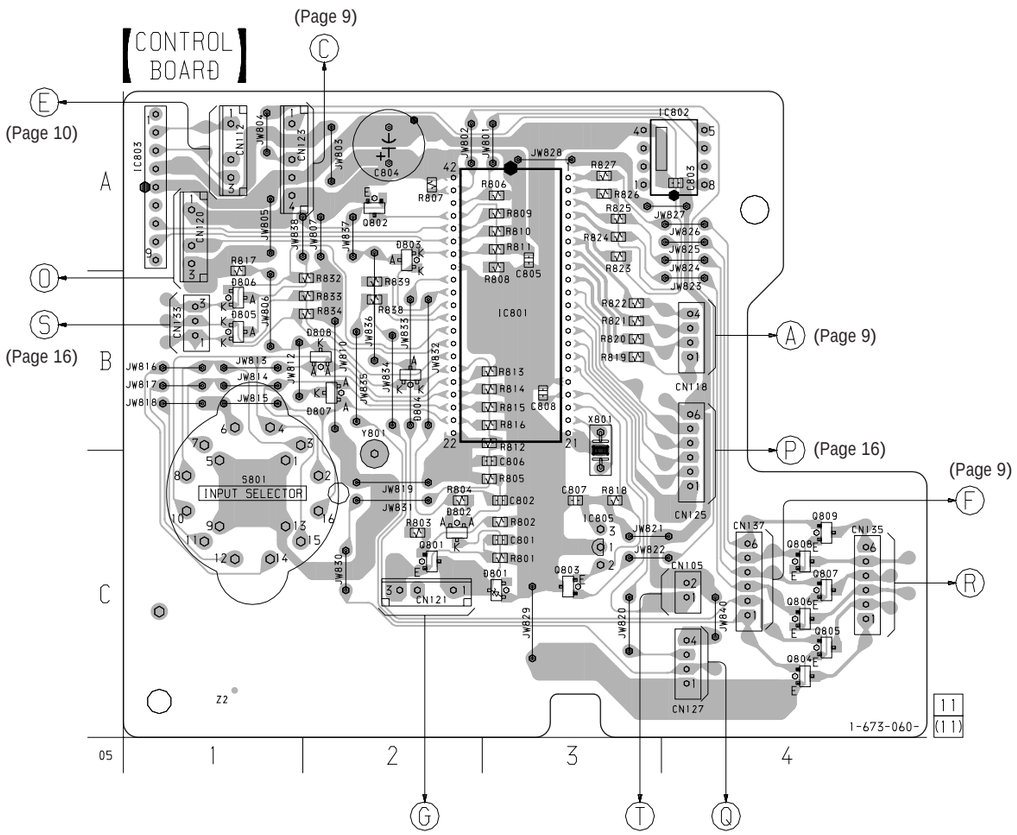
4-4. SCHEMATIC DIAGRAM – MAIN Board (2/2) –

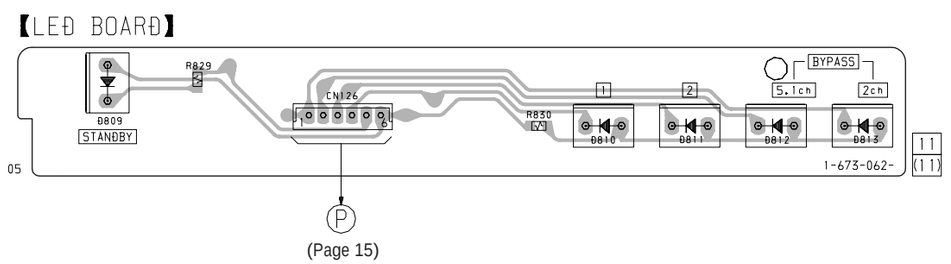


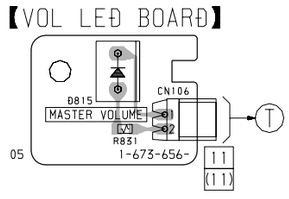
4-5. PRINTED WIRING BOARDS – PANEL Section – • See page 8 for Circuit Boards Location.

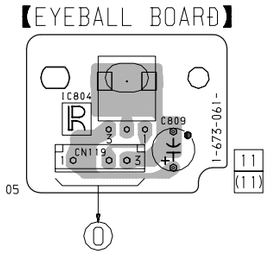
- **Semiconductor Location**

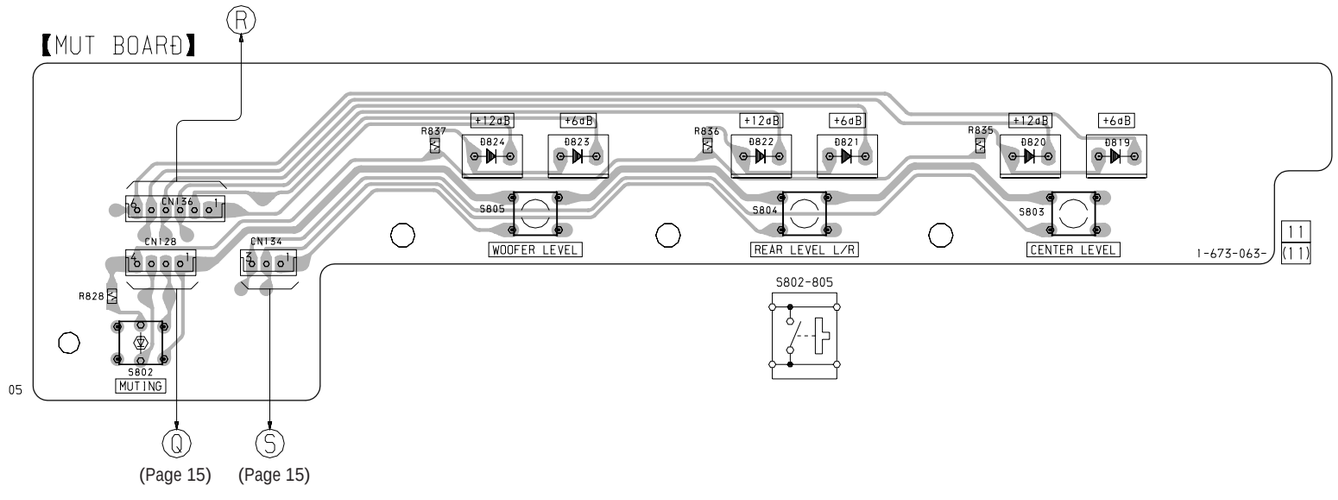
Ref. No.	Location
D801	C-3
D802	C-2
D803	A-2
D804	B-2
D805	B-1
D806	B-1
D807	B-2
D808	B-2
IC801	B-3
IC802	A-4
IC803	A-1
IC805	C-3
Q801	C-2
Q802	A-2
Q803	C-3
Q804	C-4
Q805	C-4
Q806	C-4
Q807	C-4
Q808	C-4
Q809	C-4



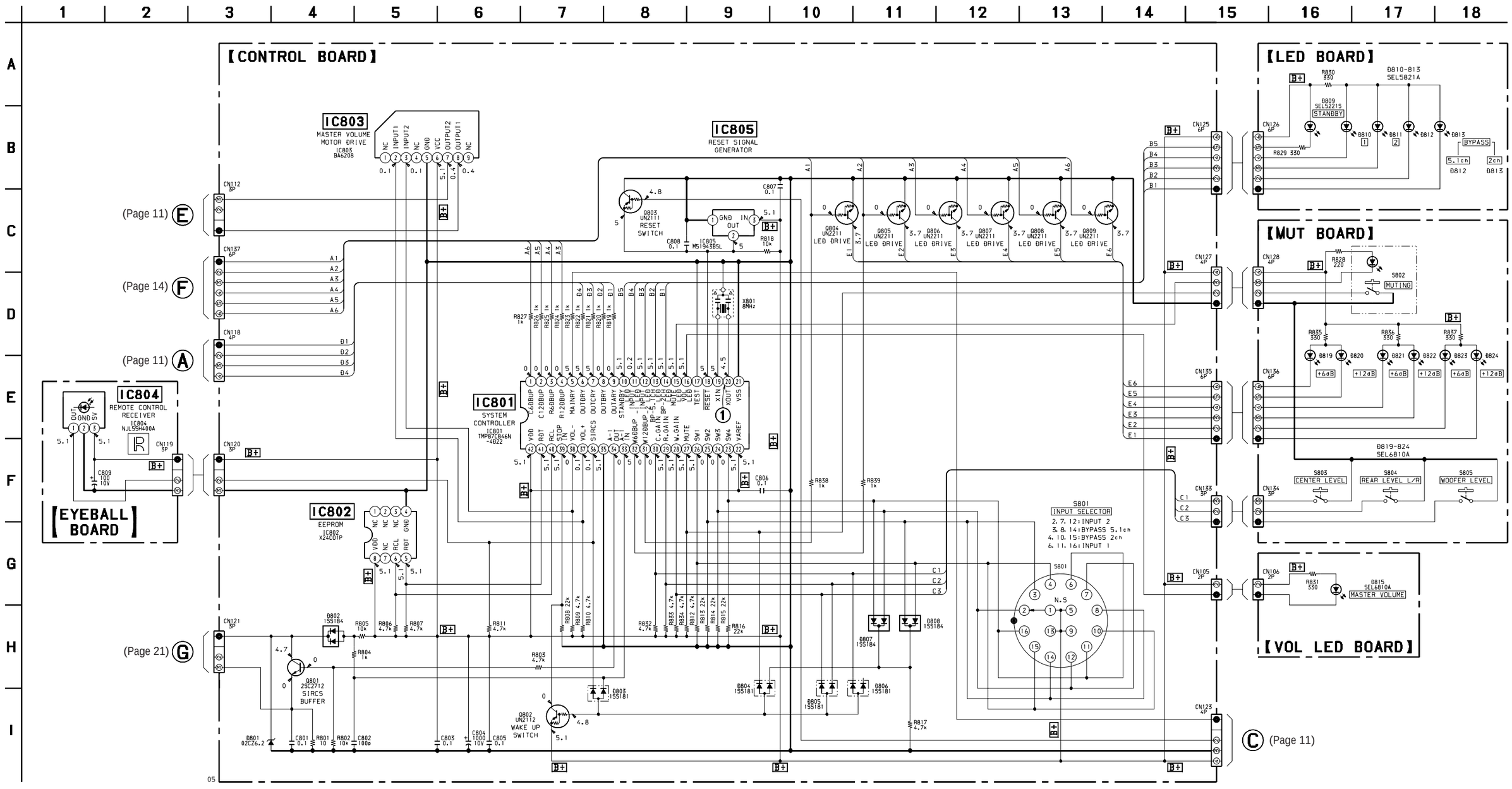




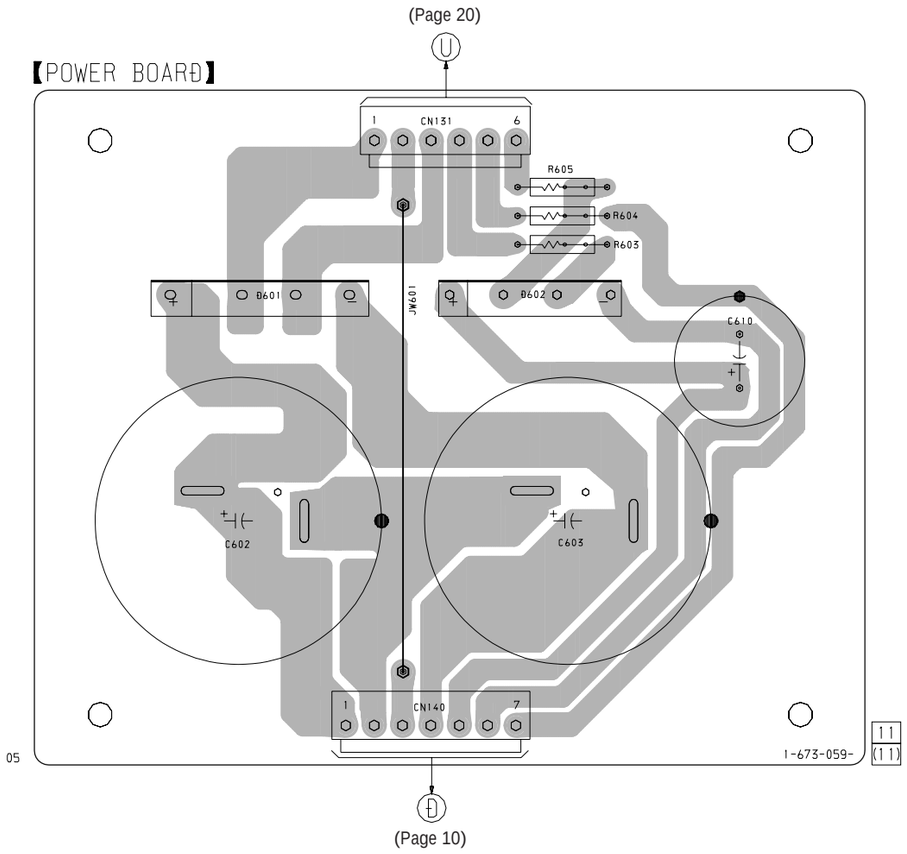


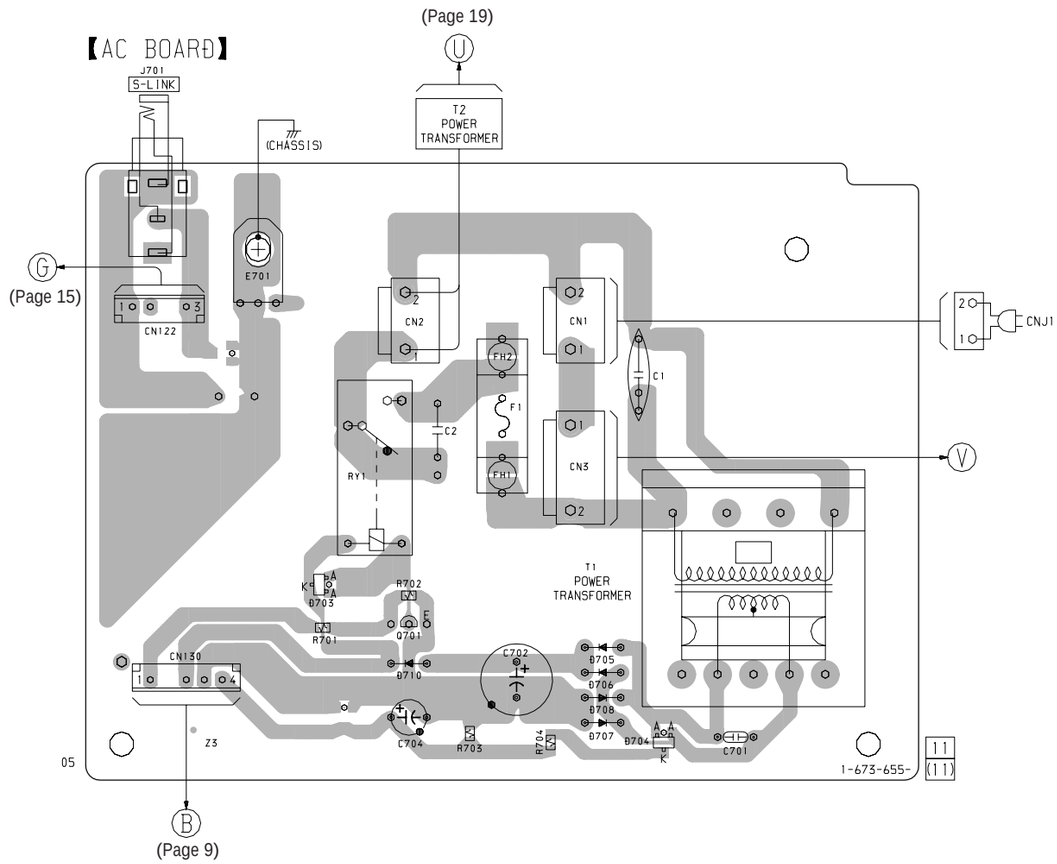


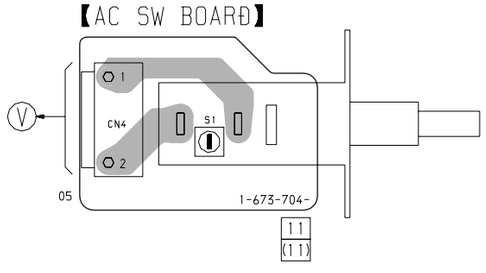
4-6. SCHEMATIC DIAGRAM – PANEL Section – • See page 22 for Waveform. • See page 22 for IC Block Diagram.



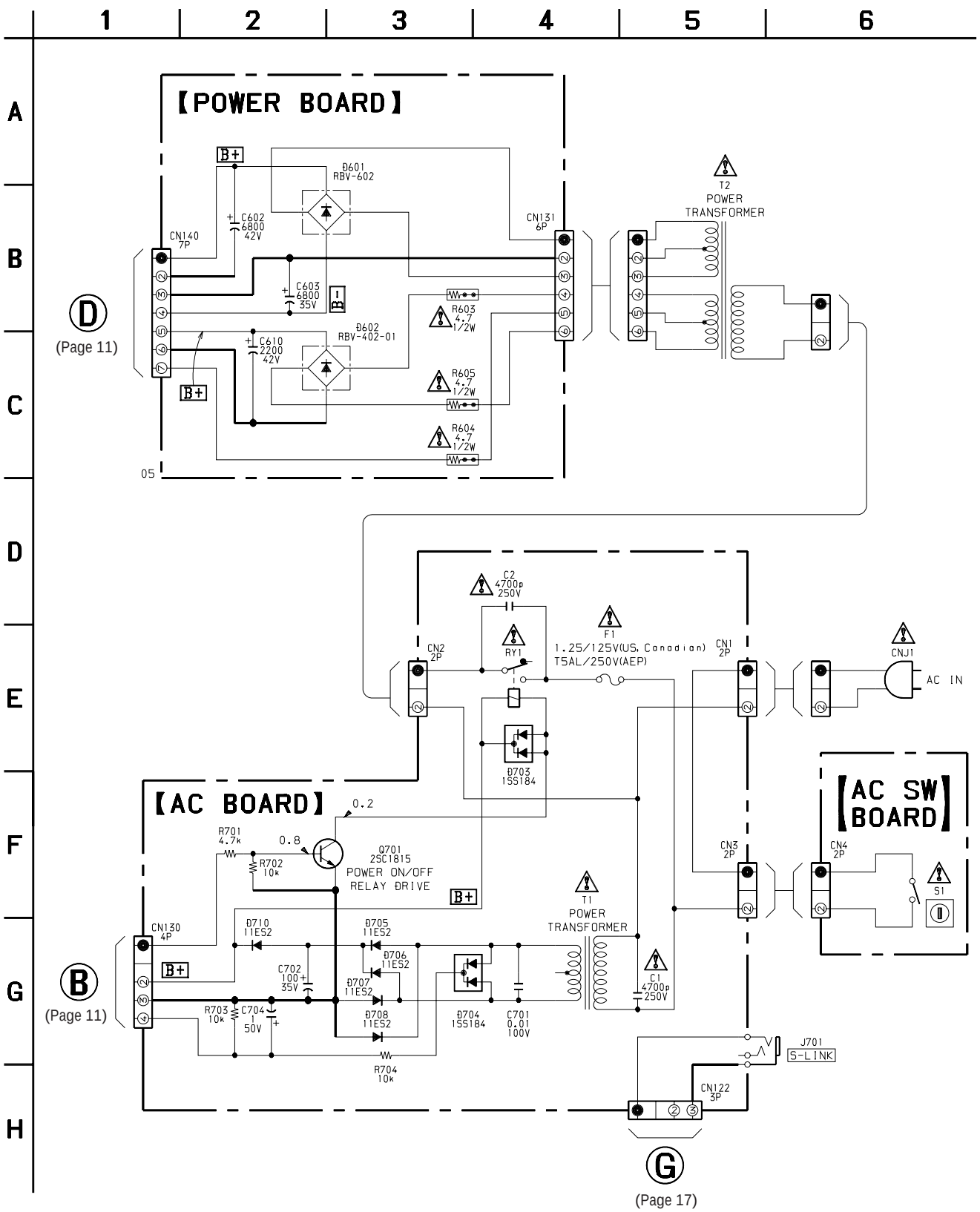
4-7. PRINTED WIRING BOARDS – POWER Section – • See page 8 for Circuit Boards Location.







4-8. SCHEMATIC DIAGRAM – POWER Section –



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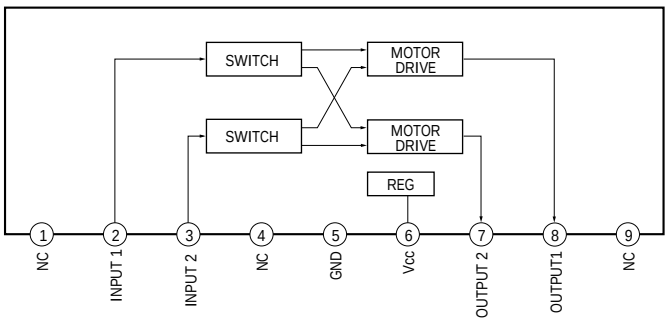
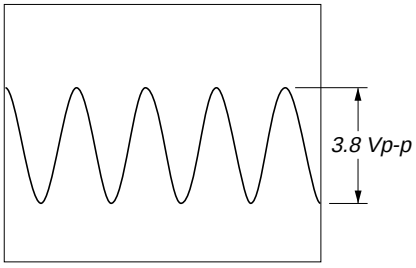
• **IC Block Diagram**
– CONTROL Board –

IC803 BA6208



• **Waveform**
– CONTROL Board –
❶ IC801 ⑳ (X-OUT)



8 MHz

4-9. IC PIN FUNCTION DESCRIPTION

• CONTROL BOARD IC801 TMP87C846N-4D22 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	C6DBUP	O	Relay drive signal output for the +6 dB gain control (for CENTER input signal) "H": +6 dB on
2	C12DBUP	O	Relay drive signal output for the +12 dB gain control (for CENTER input signal) "H": +12 dB on
3	R6DBUP	O	Relay drive signal output for the +6 dB gain control (for REAR input signal) "H": +6 dB on
4	R12DBUP	O	Relay drive signal output for the +12 dB gain control (for REAR input signal) "H": +12 dB on
5	MAINRY	O	Relay drive signal output for the power on/off control "L": standby mode, "H": power on
6	OUTDRY	O	Relay drive signal output for the INPUT 1 or 2 signal "L": INPUT 2, "H": INPUT 1
7	OUTCRY	O	Relay drive signal output for the output protect "L": protect, "H": releasing of protect
8	OUTBRY	O	Relay drive signal output for the BYPASS 2ch input signal "H": BYPASS 2ch on
9	OUTARY	O	Relay drive signal output for the BYPASS 5.1ch input signal "H": BYPASS 5.1ch on
10	STANDBY LED	O	LED drive signal output of the STANDBY LED (D809) "L": LED on
11	INPUT-1 LED	O	LED drive signal output of the input 1 LED (D810) "L": LED on
12	INPUT-2 LED	O	LED drive signal output of the input 2 LED (D811) "L": LED on
13	BP-5.1CH LED	O	LED drive signal output of the BYPASS 5.1ch input LED (D812) "L": LED on
14	BP-2CH LED	O	LED drive signal output of the BYPASS 2ch input LED (D813) "L": LED on
15	MUTE LED	O	LED drive signal output of the MUTING LED (LED on S802) "L": LED on
16	VOL LED	O	LED drive signal output of the master volume LED (D815) "L": LED on
17	TEST	I	Test input terminal (fixed at "L")
18	$\overline{\text{RESET}}$	I	System reset signal input from the reset signal generator (IC805) "L": reset For several hundreds msec. after the power supply rises, "L" is input, then it changes to "H"
19	XIN	I	Main system clock input terminal (8 MHz)
20	XOUT	O	Main system clock output terminal (8 MHz)
21	VSS	—	Ground terminal
22	VAREF	I	Reference voltage (+5V) input terminal
23	SW4	I	INPUT SELECTOR switch (S801) input terminal "H": input 1
24	SW3	I	INPUT SELECTOR switch (S801) input terminal "H": input 2
25	SW2	I	INPUT SELECTOR switch (S801) input terminal "H": BYPASS 5.1ch input
26	SW1	I	INPUT SELECTOR switch (S801) input terminal "H": BYPASS 2ch input
27	MUTE	I	MUTING switch (S802) input terminal "L" is input when key pressing
28	W. GAIN	I	WOOFER LEVEL up switch (S805) input terminal "L" is input when key pressing
29	R. GAIN	I	REAR L/R LEVEL up switch (S804) input terminal "L" is input when key pressing
30	C. GAIN	I	CENTER LEVEL up switch (S803) input terminal "L" is input when key pressing
31	W12DBUP	O	Relay drive signal output for the +12 dB gain control (for WOOFER input signal) "H": +12 dB on
32	W6DBUP	O	Relay drive signal output for the +6 dB gain control (for WOOFER input signal) "H": +6 dB on
33	A-1 IN	I	Sircs remote control signal input for the S-LINK control A1
34	A-1 OUT	O	Sircs remote control signal output for the S-LINK control A1
35	—	I	Not used (fixed at "L")
36	SIRCS	I	Remote control signal input from the remote control receiver (IC804)
37	VOL+	O	Motor drive signal output to the volume motor drive (IC803) (volume up direction)
38	VOL–	O	Motor drive signal output to the volume motor drive (IC803) (volume down direction)
39	STOP IN	I	Trigger input terminal
40	RCL	O	Serial clock signal output to the EEPROM (IC802)
41	RDT	I/O	Two-way data bus with the EEPROM (IC802)
42	VDD	—	Power supply terminal (+5V)

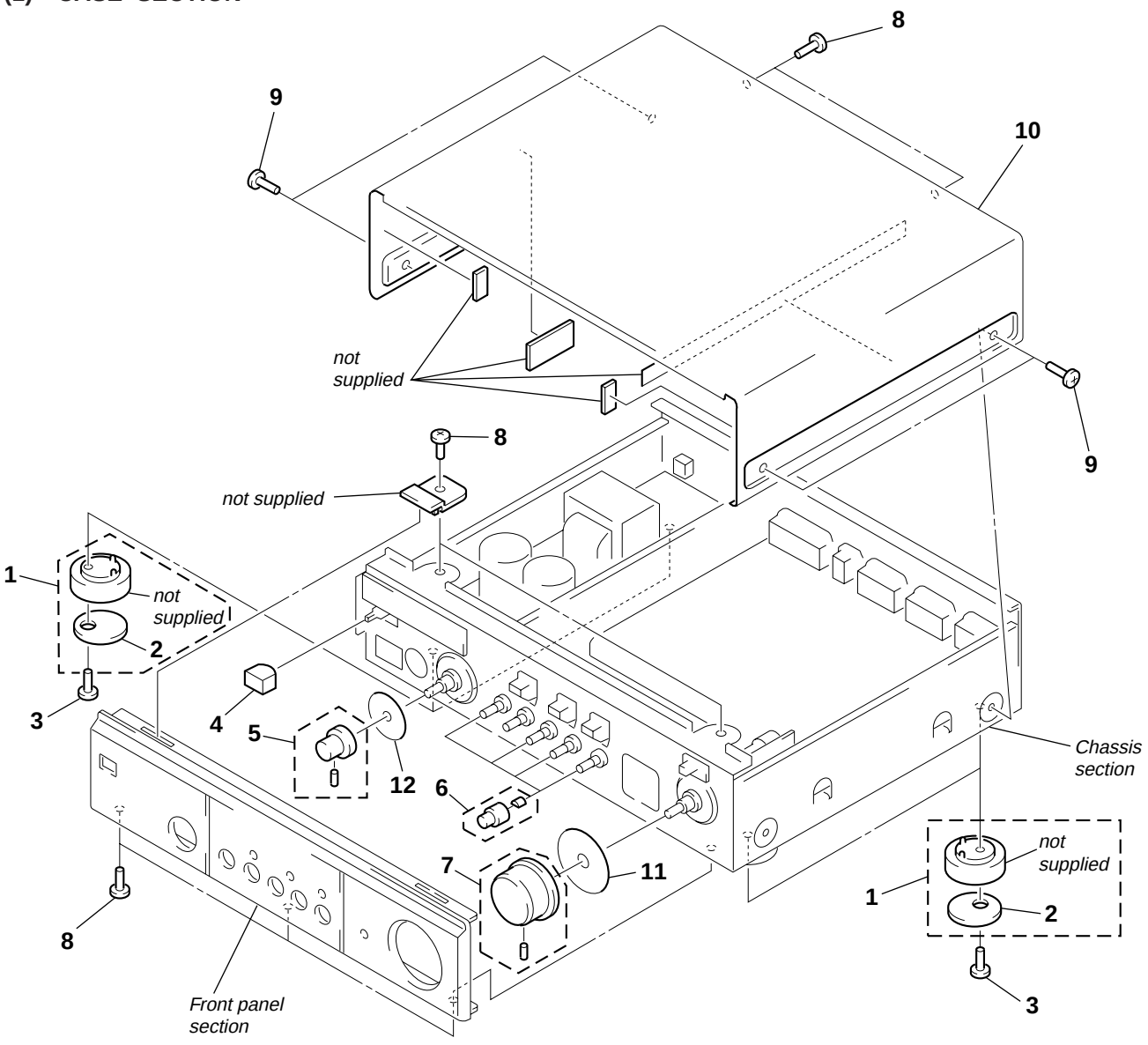
SECTION 5
EXPLODED VIEWS

NOTE:
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example:
  KNOB, BALANCE (WHITE) . . . (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.
- Accessories and packing materials are given in the last of the electrical parts list.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

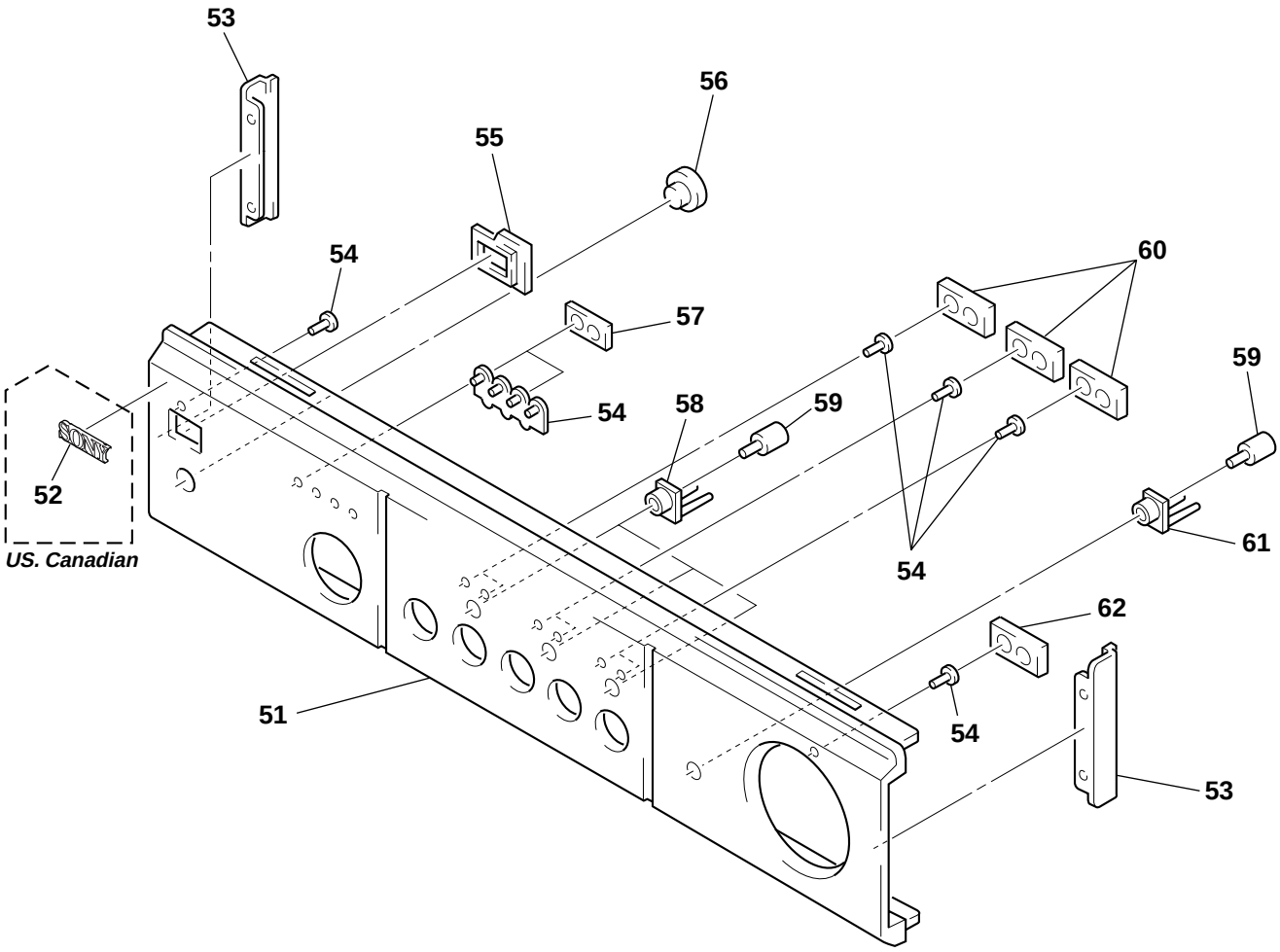
Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

(1) CASE SECTION



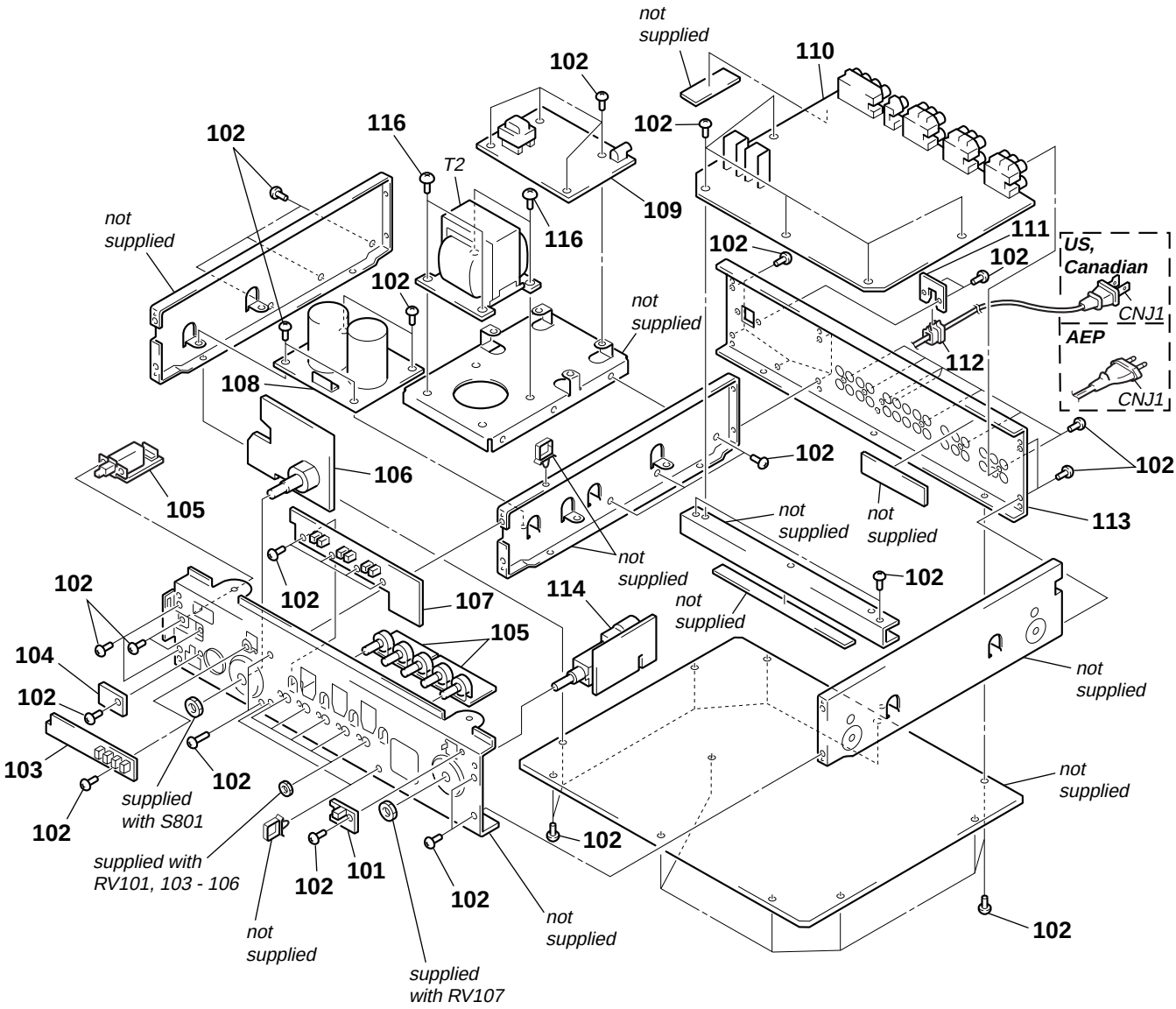
Ref. No.	Part No.	Description	Remark
1	X-4950-540-1	FOOT ASSY	
2	4-972-889-01	CUSHION	
3	7-685-885-09	SCREW +BVTT 4X16 (S)	
4	X-4950-227-1	BUTTON ASSY, POWER (GOLD)	
4	X-4950-228-1	BUTTON ASSY, POWER (BLACK)	
5	4-211-468-01	KNOB (29-S) (GOLD)	
5	4-211-468-11	KNOB (29-S) (BLACK)	
6	4-218-473-01	KNOB (R17) (GOLD)	
6	4-218-473-11	KNOB (R17) (BLACK)	
7	4-211-436-01	KNOB (VOL) (GOLD)	
7	4-211-436-11	KNOB (VOL) (BLACK)	
8	4-974-510-11	SCREW (+BV 3X8 CU)	
9	4-976-827-01	SCREW, FLAT HEAD (FOR BLACK)	
9	4-976-827-11	SCREW, FLAT HEAD (FOR GOLD)	
10	4-218-469-01	CASE (410735E) (GOLD)	
10	4-218-469-01	CASE (410735E) (BLACK)	
11	4-219-622-01	WASHER (BLIND)	
12	4-211-466-01	SHEET (A), LIGHT INTERCEPTION	

(2) FRONT PANEL SECTION



Ref. No.	Part No.	Description	Remark
51	4-218-470-01	PANEL, FRONT (GOLD)	
51	4-218-470-11	PANEL, FRONT (BLACK)	
52	4-942-568-41	EMBLEM (NO.5), SONY (for BLACK)	
53	4-218-464-01	PANEL, SIDE (GOLD)	
53	4-218-464-11	PANEL, SIDE (BLACK)	
54	4-211-094-01	INDICATOR (6)	
55	4-921-415-04	ESCUTCHEON, POWER KNOB (BLACK)	
55	4-921-415-13	ESCUTCHEON, POWER KNOB (GOLD)	
56	4-975-105-01	WINDOW, RAY CATCHER (BLACK)	
56	4-975-105-31	WINDOW, RAY CATCHER (GOLD)	
57	4-219-621-21	PLATE (P), LIGHT INTERCEPTION	
58	4-211-465-11	ESCUTCHEON (LED) (GOLD)	
58	4-211-465-21	ESCUTCHEON (LED) (BLACK)	
59	4-211-455-01	BUTTON (LED)	
60	4-219-621-01	PLATE (P), LIGHT INTERCEPTION	
61	4-211-465-01	ESCUTCHEON (LED)	
62	4-219-621-11	PLATE (P), LIGHT INTERCEPTION	

(3) CHASSIS SECTION



The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
101	1-673-656-11	VOL LED BOARD	
102	4-974-510-11	SCREW (+BV 3X8 CU)	
103	1-673-062-11	LED BOARD	
104	1-673-061-11	EYEBALL BOARD	
105	1-673-704-11	AC SW BOARD	
106	A-4419-502-A	CONTROL BOARD, COMPLETE	
107	1-673-063-11	MUT BOARD	
108	1-673-059-11	POWER BOARD	
109	A-4419-510-A	AC BOARD, COMPLETE (US, Canadian)	
109	A-4419-511-A	AC BOARD, COMPLETE (AEP)	
110	A-4419-500-A	MAIN BOARD, COMPLETE	

Ref. No.	Part No.	Description	Remark
* 111	4-923-873-01	BRACKET, CORD STOPPER	
112	2-352-626-01	BUSHING, CORD	
113	4-218-471-11	PANEL, BACK (US, Canadian)	
113	4-218-471-21	PANEL, BACK (AEP)	
114	1-673-057-11	MASTER VOLUME BOARD	
115	1-673-058-11	SUB VOLUME BOARD	
116	7-685-881-09	SCREW +BVTT 4X8 (S)	
⚠CNJ1	1-559-479-11	CORD, POWER (US, Canadian)	
⚠CNJ1	1-575-953-11	CORD, POWER (AEP)	
⚠T2	1-433-651-11	TRANSFORMER, POWER (US, Canadian)	
⚠T2	1-433-652-11	TRANSFORMER, POWER (AEP)	

SECTION 6
ELECTRICAL PARTS LIST

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL: Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F: nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service.
  Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u: µ, for example:
  uA. . : µA. . uPA. . : µPA. .
  uPB. . : µPB. . uPC. . : µPC. .
  uPD. . : µPD. .
- CAPACITORS
  uF: µF
- COILS
  uH: µH

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiquens pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

When indicating parts by reference number, please include the board.

Ref. No.	Part No.	Description			Remark
	A-4419-510-A	AC BOARD, COMPLETE (US, Canadian)			
	A-4419-511-A	AC BOARD, COMPLETE (AEP)			
		**********			
	1-533-293-11	FUSE HOLDER			
		< CAPACITOR >			
⚠C1	1-113-924-11	CERAMIC	0.0047uF	20%	250V
⚠C2	1-113-924-11	CERAMIC	0.0047uF	20%	250V
C701	1-137-393-11	FILM	0.01uF	5%	100V
C702	1-126-948-11	ELECT	100uF	20%	35V
C704	1-126-960-11	ELECT	1uF	20%	50V
		< CONNECTOR >			
CN1	1-564-321-00	PIN, CONNECTOR 2P			
* CN2	1-564-321-21	PIN, CONNECTOR 2P			
CN3	1-580-629-11	PIN, CONNECTOR 2P			
CN122	1-691-765-31	PLUG (MICRO CONNECTOR) 3P			
CN130	1-691-766-21	PLUG (MICRO CONNECTOR) 4P			
		< DIODE >			
D703	8-719-801-78	DIODE 1SS184			
D704	8-719-801-78	DIODE 1SS184			
D705	8-719-200-82	DIODE 11ES2			
D706	8-719-200-82	DIODE 11ES2			
D707	8-719-200-82	DIODE 11ES2			
D708	8-719-200-82	DIODE 11ES2			
D710	8-719-200-82	DIODE 11ES2			
		< FUSE >			
⚠F1	1-532-279-00	FUSE, TIME-LAG (5A/250V) (AEP)			
⚠F1	1-533-417-11	FUSE GLASS TUBE (1.25A/125V) (US, Canadian)			
		< JACK >			
J701	1-563-330-11	JACK (S-LINK)			
		< TRANSISTOR >			
Q701	8-729-281-54	TRANSISTOR 2SC1815-BL			
		< RESISTOR >			
R701	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R702	1-216-073-00	METAL CHIP	10K	5%	1/10W
R703	1-216-073-00	METAL CHIP	10K	5%	1/10W
R704	1-216-073-00	METAL CHIP	10K	5%	1/10W
		< RELAY >			
⚠RY1	1-755-018-11	RELAY			
		< TRANSFORMER >			
⚠T1	1-433-735-11	TRANSFORMER, POWER (AEP)			
⚠T1	1-433-736-11	TRANSFORMER, POWER (US, Canadian)			
**********					
	1-673-704-11	AC SW BOARD			
		**********			
		< CONNECTOR >			
CN4	1-580-629-11	PIN, CONNECTOR 2P			
		< SWITCH >			
⚠S1	1-572-267-21	SWITCH, PUSH (AC POWER) (1 KEY) (ⓘ)			
**********					
	A-4419-502-A	CONTROL BOARD, COMPLETE			
		**********			
		< CAPACITOR >			
C801	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C802	1-163-251-11	CERAMIC CHIP	100PF	5%	50V
C803	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C804	1-126-926-11	ELECT	1000uF	20%	10V
C805	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C806	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C807	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C808	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
		< CONNECTOR >			
* CN105	1-568-951-11	PIN, CONNECTOR 2P			
CN112	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN118	1-506-469-11	PIN, CONNECTOR 4P			
CN120	1-691-765-21	PLUG (MICRO CONNECTOR) 3P			
CN121	1-691-765-31	PLUG (MICRO CONNECTOR) 3P			
CN123	1-691-766-11	PLUG (MICRO CONNECTOR) 4P			
* CN125	1-568-955-11	PIN, CONNECTOR 6P			
CN127	1-506-469-11	PIN, CONNECTOR 4P			
CN133	1-506-468-11	PIN, CONNECTOR 3P			
CN135	1-568-955-11	PIN, CONNECTOR 6P			

CONTROL **EYEBALL** **LED** **MAIN**

Ref. No.	Part No.	Description			Remark
* CN137	1-568-955-11	PIN, CONNECTOR 6P			
		< DIODE >			
D801	8-719-025-33	DIODE 02CZ6.2-TE85L			
D802	8-719-801-78	DIODE 1SS184			
D803	8-719-820-05	DIODE 1SS181			
D804	8-719-820-05	DIODE 1SS181			
D805	8-719-820-05	DIODE 1SS181			
D806	8-719-820-05	DIODE 1SS181			
D807	8-719-801-78	DIODE 1SS184			
D808	8-719-801-78	DIODE 1SS184			
		< IC >			
IC801	8-759-590-53	IC TMP87C846N-4D22			
IC802	8-759-188-67	IC X24C01P-S			
IC803	8-759-962-08	IC BA6208			
IC805	8-759-635-63	IC M51943BSL			
		< TRANSISTOR >			
Q801	8-729-230-49	TRANSISTOR 2SC2712-YG			
Q802	8-729-424-12	TRANSISTOR UN2112			
Q803	8-729-424-08	TRANSISTOR UN2111			
Q804	8-729-421-22	TRANSISTOR UN2211			
Q805	8-729-421-22	TRANSISTOR UN2211			
Q806	8-729-421-22	TRANSISTOR UN2211			
Q807	8-729-421-22	TRANSISTOR UN2211			
Q808	8-729-421-22	TRANSISTOR UN2211			
Q809	8-729-421-22	TRANSISTOR UN2211			
		< RESISTOR >			
R801	1-216-001-00	METAL CHIP	10	5%	1/10W
R802	1-216-073-00	METAL CHIP	10K	5%	1/10W
R803	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R804	1-216-049-11	RES, CHIP	1K	5%	1/10W
R805	1-216-073-00	METAL CHIP	10K	5%	1/10W
R806	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R807	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R808	1-216-081-00	METAL CHIP	22K	5%	1/10W
R809	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R810	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R811	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R812	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R813	1-216-081-00	METAL CHIP	22K	5%	1/10W
R814	1-216-081-00	METAL CHIP	22K	5%	1/10W
R815	1-216-081-00	METAL CHIP	22K	5%	1/10W
R816	1-216-081-00	METAL CHIP	22K	5%	1/10W
R817	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R818	1-216-073-00	METAL CHIP	10K	5%	1/10W
R819	1-216-049-11	RES, CHIP	1K	5%	1/10W
R820	1-216-049-11	RES, CHIP	1K	5%	1/10W
R821	1-216-049-11	RES, CHIP	1K	5%	1/10W
R822	1-216-049-11	RES, CHIP	1K	5%	1/10W
R823	1-216-049-11	RES, CHIP	1K	5%	1/10W
R824	1-216-049-11	RES, CHIP	1K	5%	1/10W
R825	1-216-049-11	RES, CHIP	1K	5%	1/10W
R826	1-216-049-11	RES, CHIP	1K	5%	1/10W
R827	1-216-049-11	RES, CHIP	1K	5%	1/10W
R832	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R833	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R834	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R838	1-216-049-11	RES, CHIP	1K	5%	1/10W
R839	1-216-049-11	RES, CHIP	1K	5%	1/10W
		< SWITCH >			
S801	1-572-095-21	SWITCH, ROTARY (INPUT SELECTOR)			
		< VIBRATOR >			
X801	1-579-952-11	VIBRATOR, CERAMIC (8MHz)			
**********					
	1-673-061-11	EYEBALL BOARD			
		**********			
		< CAPACITOR >			
C809	1-126-382-11	ELECT	100uF	20%	10V
		< CONNECTOR >			
CN119	1-691-765-21	PLUG (MICRO CONNECTOR) 3P			
		< IC >			
IC804	8-759-459-83	IC NJL55H400A (REMOTE CONTROL RECEIVER)			
**********					
	1-673-062-11	LED BOARD			
		**********			
		< CONNECTOR >			
* CN126	1-568-955-11	PIN, CONNECTOR 6P			
		< LED >			
D809	8-719-046-46	LED SEL5221S-TH8F (STANDBY)			
D810	8-719-046-38	LED SEL5821A-TH8F (1)			
D811	8-719-046-38	LED SEL5821A-TH8F (2)			
D812	8-719-046-38	LED SEL5821A-TH8F (BYPASS 5.1ch)			
D813	8-719-046-38	LED SEL5821A-TH8F (BYPASS 2ch)			
		< RESISTOR >			
R829	1-216-037-00	METAL CHIP	330	5%	1/10W
R830	1-216-037-00	METAL CHIP	330	5%	1/10W
**********					
	A-4419-500-A	MAIN BOARD, COMPLETE			
		**********			
*	4-880-403-11	HEAT SINK			
		< BUS BAR >			
* BB1	1-560-242-41	BUS BAR 11P			
* BB2	1-560-242-41	BUS BAR 11P			
* BB3	1-560-242-41	BUS BAR 11P			
		< CAPACITOR >			
C201	1-136-808-11	FILM	100PF	5%	100V
C202	1-136-810-11	FILM	220PF	5%	100V

Ref. No.	Part No.	Description			Remark
C203	1-125-842-11	FILM	4PF	10%	50V
C204	1-119-830-11	ELECT	330uF	20%	25V
C205	1-119-830-11	ELECT	330uF	20%	25V
C206	1-136-810-11	FILM	220PF	5%	100V
C207	1-119-830-11	ELECT	330uF	20%	25V
C208	1-119-830-11	ELECT	330uF	20%	25V
C211	1-119-836-21	ELECT	47uF	20%	63V
C251	1-136-808-11	FILM	100PF	5%	100V
C252	1-136-810-11	FILM	220PF	5%	100V
C253	1-125-842-11	FILM	4PF	10%	50V
C254	1-119-830-11	ELECT	330uF	20%	25V
C255	1-119-830-11	ELECT	330uF	20%	25V
C256	1-136-810-11	FILM	220PF	5%	100V
C257	1-119-830-11	ELECT	330uF	20%	25V
C258	1-119-830-11	ELECT	330uF	20%	25V
C261	1-119-836-21	ELECT	47uF	20%	63V
C301	1-136-808-11	FILM	100PF	5%	100V
C302	1-136-810-11	FILM	220PF	5%	100V
C303	1-125-842-11	FILM	4PF	10%	50V
C304	1-119-830-11	ELECT	330uF	20%	25V
C305	1-119-830-11	ELECT	330uF	20%	25V
C306	1-136-810-11	FILM	220PF	5%	100V
C307	1-119-830-11	ELECT	330uF	20%	25V
C308	1-119-830-11	ELECT	330uF	20%	25V
C309	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C310	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C311	1-119-836-21	ELECT	47uF	20%	63V
C351	1-136-808-11	FILM	100PF	5%	100V
C352	1-136-810-11	FILM	220PF	5%	100V
C353	1-125-842-11	FILM	4PF	10%	50V
C354	1-119-830-11	ELECT	330uF	20%	25V
C355	1-119-830-11	ELECT	330uF	20%	25V
C356	1-136-810-11	FILM	220PF	5%	100V
C357	1-119-830-11	ELECT	330uF	20%	25V
C358	1-119-830-11	ELECT	330uF	20%	25V
C361	1-119-836-21	ELECT	47uF	20%	63V
C401	1-136-808-11	FILM	100PF	5%	100V
C402	1-136-810-11	FILM	220PF	5%	100V
C403	1-125-842-11	FILM	4PF	10%	50V
C404	1-119-830-11	ELECT	330uF	20%	25V
C405	1-119-830-11	ELECT	330uF	20%	25V
C406	1-136-810-11	FILM	220PF	5%	100V
C407	1-119-830-11	ELECT	330uF	20%	25V
C408	1-119-830-11	ELECT	330uF	20%	25V
C409	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C410	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C411	1-119-836-21	ELECT	47uF	20%	63V
C451	1-136-808-11	FILM	100PF	5%	100V
C452	1-136-810-11	FILM	220PF	5%	100V
C453	1-125-842-11	FILM	4PF	10%	50V
C454	1-119-830-11	ELECT	330uF	20%	25V
C455	1-119-830-11	ELECT	330uF	20%	25V
C456	1-136-810-11	FILM	220PF	5%	100V
C457	1-119-830-11	ELECT	330uF	20%	25V
C458	1-119-830-11	ELECT	330uF	20%	25V
C459	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C460	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C461	1-119-836-21	ELECT	47uF	20%	63V

Ref. No.	Part No.	Description			Remark
C501	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C502	1-106-343-00	MYLAR	1000PF	5%	200V
C503	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C504	1-106-343-00	MYLAR	1000PF	5%	200V
C505	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C506	1-106-343-00	MYLAR	1000PF	5%	200V
C507	1-106-343-00	MYLAR	1000PF	5%	200V
C508	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C509	1-115-339-11	CERAMIC CHIP	0.1uF	10%	50V
C510	1-126-960-11	ELECT	1uF	20%	50V
C511	1-126-960-11	ELECT	1uF	20%	50V
C512	1-126-960-11	ELECT	1uF	20%	50V
C513	1-126-960-11	ELECT	1uF	20%	50V
C514	1-126-960-11	ELECT	1uF	20%	50V
C515	1-126-960-11	ELECT	1uF	20%	50V
C604	1-119-830-11	ELECT	330uF	20%	25V
C606	1-128-800-11	ELECT	3600uF	20%	50V
C607	1-119-830-11	ELECT	330uF	20%	25V
C608	1-125-844-21	FILM	33PF	10%	50V
C609	1-128-800-11	ELECT	3600uF	20%	50V
C611	1-119-814-21	ELECT	1000uF	20%	35V
C612	1-130-495-00	MYLAR	0.1uF	5%	50V
C613	1-119-793-11	ELECT	1000uF	20%	16V
C614	1-119-815-21	ELECT	2200uF	20%	35V
C615	1-125-844-21	FILM	33PF	10%	50V
C616	1-130-495-00	MYLAR	0.1uF	5%	50V
C617	1-130-483-00	MYLAR	0.01uF	5%	50V
C618	1-130-483-00	MYLAR	0.01uF	5%	50V
C619	1-130-483-00	MYLAR	0.01uF	5%	50V
C620	1-130-483-00	MYLAR	0.01uF	5%	50V

< CONNECTOR >

CN101	1-564-510-11	PLUG (MICRO CONNECTOR) 6P	
CN103	1-691-768-41	PLUG (MICRO CONNECTOR) 6P	
CN114	1-691-766-11	PLUG (MICRO CONNECTOR) 4P	
CN116	1-691-766-31	PLUG (MICRO CONNECTOR) 4P	
CN117	1-506-469-11	PIN, CONNECTOR 4P	
CN124	1-691-766-11	PLUG (MICRO CONNECTOR) 4P	
CN129	1-691-766-21	PLUG (MICRO CONNECTOR) 4P	
* CN138	1-568-955-11	PIN, CONNECTOR 6P	
* CN139	1-564-915-11	PIN, CONNECTOR 7P	
CN142	1-691-766-41	PLUG (MICRO CONNECTOR) 4P	

< DIODE >

D201	8-719-025-25	DIODE	02CZ3.6-TE85L
D203	8-719-800-76	DIODE	1SS226
D204	8-719-800-76	DIODE	1SS226
D205	8-719-800-76	DIODE	1SS226
D206	8-719-800-76	DIODE	1SS226
D251	8-719-025-25	DIODE	02CZ3.6-TE85L
D253	8-719-800-76	DIODE	1SS226
D254	8-719-800-76	DIODE	1SS226
D255	8-719-800-76	DIODE	1SS226
D256	8-719-800-76	DIODE	1SS226
D301	8-719-025-25	DIODE	02CZ3.6-TE85L
D303	8-719-800-76	DIODE	1SS226
D304	8-719-800-76	DIODE	1SS226
D305	8-719-800-76	DIODE	1SS226

MAIN

Ref. No.	Part No.	Description	Remark
D306	8-719-800-76	DIODE 1SS226	
D307	8-719-801-78	DIODE 1SS184	
D308	8-719-801-78	DIODE 1SS184	
D351	8-719-025-25	DIODE 02CZ3.6-TE85L	
D353	8-719-800-76	DIODE 1SS226	
D354	8-719-800-76	DIODE 1SS226	
D355	8-719-800-76	DIODE 1SS226	
D356	8-719-800-76	DIODE 1SS226	
D401	8-719-025-25	DIODE 02CZ3.6-TE85L	
D403	8-719-800-76	DIODE 1SS226	
D404	8-719-800-76	DIODE 1SS226	
D405	8-719-800-76	DIODE 1SS226	
D406	8-719-800-76	DIODE 1SS226	
D407	8-719-801-78	DIODE 1SS184	
D408	8-719-801-78	DIODE 1SS184	
D451	8-719-025-25	DIODE 02CZ3.6-TE85L	
D453	8-719-800-76	DIODE 1SS226	
D454	8-719-800-76	DIODE 1SS226	
D455	8-719-800-76	DIODE 1SS226	
D456	8-719-800-76	DIODE 1SS226	
D457	8-719-801-78	DIODE 1SS184	
D458	8-719-801-78	DIODE 1SS184	
D501	8-719-801-78	DIODE 1SS184	
D502	8-719-801-78	DIODE 1SS184	
D503	8-719-801-78	DIODE 1SS184	
D504	8-719-801-78	DIODE 1SS184	
D505	8-719-801-78	DIODE 1SS184	
D603	8-719-025-34	DIODE 02CZ6.8-TE85L	
D604	8-719-025-34	DIODE 02CZ6.8-TE85L	
D605	8-719-200-82	DIODE 11ES2	
		< IC >	
IC601	8-759-605-03	IC M5F78M24	
IC602	8-759-604-35	IC M5F78M05L	
		< JACK >	
J101	1-785-489-11	JACK, PIN 6P (BYPASS 5.1ch: FRONT, REAR, CENTER, WOOFER)	
J102	1-785-868-21	JACK, PIN 2P (BYPASS 2ch)	
J103	1-785-489-11	JACK, PIN 6P (INPUT 2: FRONT, REAR, CENTER, WOOFER)	
J104	1-785-489-11	JACK, PIN 6P (INPUT 1: FRONT, REAR, CENTER, WOOFER)	
J105	1-784-934-11	JACK, PIN 4P (PRE OUT: FRONT, REAR)	
J106	1-785-286-11	JACK, PIN 4P (PRE OUT: CENTER, WOOFER)	
		< TRANSISTOR >	
Q201	8-729-023-11	FET 2SK2145GTE85L	
Q202	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q203	8-729-216-22	TRANSISTOR 2SA1162-G	
Q204	8-729-216-22	TRANSISTOR 2SA1162-G	
Q205	8-729-216-22	TRANSISTOR 2SA1162-G	
Q206	8-729-216-22	TRANSISTOR 2SA1162-G	
Q207	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q208	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q209	8-729-216-22	TRANSISTOR 2SA1162-G	
Q210	8-729-018-60	TRANSISTOR 2SD2012-LC	
Q211	8-729-018-59	TRANSISTOR 2SB1375-LC	
Q251	8-729-023-11	FET 2SK2145GTE85L	
Q252	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q253	8-729-216-22	TRANSISTOR 2SA1162-G	
Q254	8-729-216-22	TRANSISTOR 2SA1162-G	
Q255	8-729-216-22	TRANSISTOR 2SA1162-G	
Q256	8-729-216-22	TRANSISTOR 2SA1162-G	
Q257	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q258	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q259	8-729-216-22	TRANSISTOR 2SA1162-G	
Q260	8-729-018-60	TRANSISTOR 2SD2012-LC	
Q261	8-729-018-59	FET 2SB1375-LC	
Q301	8-729-023-11	TRANSISTOR 2SK2145GTE85L	
Q302	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q303	8-729-216-22	TRANSISTOR 2SA1162-G	
Q304	8-729-216-22	TRANSISTOR 2SA1162-G	
Q305	8-729-216-22	TRANSISTOR 2SA1162-G	
Q306	8-729-216-22	TRANSISTOR 2SA1162-G	
Q307	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q308	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q309	8-729-216-22	TRANSISTOR 2SA1162-G	
Q310	8-729-018-60	TRANSISTOR 2SD2012-LC	
Q311	8-729-018-59	TRANSISTOR 2SB1375-LC	
Q351	8-729-023-11	FET 2SK2145GTE85L	
Q352	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q353	8-729-216-22	TRANSISTOR 2SA1162-G	
Q354	8-729-216-22	TRANSISTOR 2SA1162-G	
Q355	8-729-216-22	TRANSISTOR 2SA1162-G	
Q356	8-729-216-22	TRANSISTOR 2SA1162-G	
Q357	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q358	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q359	8-729-216-22	TRANSISTOR 2SA1162-G	
Q360	8-729-018-60	TRANSISTOR 2SD2012-LC	
Q361	8-729-018-59	TRANSISTOR 2SB1375-LC	
Q401	8-729-023-11	FET 2SK2145GTE85L	
Q402	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q403	8-729-216-22	TRANSISTOR 2SA1162-G	
Q404	8-729-216-22	TRANSISTOR 2SA1162-G	
Q405	8-729-216-22	TRANSISTOR 2SA1162-G	
Q406	8-729-216-22	TRANSISTOR 2SA1162-G	
Q407	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q408	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q409	8-729-216-22	TRANSISTOR 2SA1162-G	
Q410	8-729-018-60	TRANSISTOR 2SD2012-LC	
Q411	8-729-018-59	TRANSISTOR 2SB1375-LC	
Q451	8-729-023-11	FET 2SK2145GTE85L	
Q452	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q453	8-729-216-22	TRANSISTOR 2SA1162-G	
Q454	8-729-216-22	TRANSISTOR 2SA1162-G	
Q455	8-729-216-22	TRANSISTOR 2SA1162-G	
Q456	8-729-216-22	TRANSISTOR 2SA1162-G	
Q457	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q458	8-729-230-49	TRANSISTOR 2SC2712-YG	
Q459	8-729-216-22	TRANSISTOR 2SA1162-G	
Q460	8-729-018-60	TRANSISTOR 2SD2012-LC	
Q461	8-729-018-59	TRANSISTOR 2SB1375-LC	
Q501	8-729-216-22	TRANSISTOR 2SA1162-G	
Q502	8-729-421-22	TRANSISTOR UN2211	

Ref. No.	Part No.	Description				Remark
Q503	8-729-216-22	TRANSISTOR	2SA1162-G			
Q504	8-729-421-22	TRANSISTOR	UN2211			
Q505	8-729-216-22	TRANSISTOR	2SA1162-G			
Q506	8-729-421-22	TRANSISTOR	UN2211			
Q507	8-729-216-22	TRANSISTOR	2SA1162-G			
Q508	8-729-421-22	TRANSISTOR	UN2211			
Q509	8-729-216-22	TRANSISTOR	2SA1162-G			
Q510	8-729-421-22	TRANSISTOR	UN2211			
Q512	8-729-216-22	TRANSISTOR	2SA1162-G			
Q513	8-729-421-22	TRANSISTOR	UN2211			
Q514	8-729-216-22	TRANSISTOR	2SA1162-G			
Q515	8-729-421-22	TRANSISTOR	UN2211			
Q516	8-729-216-22	TRANSISTOR	2SA1162-G			
Q517	8-729-421-22	TRANSISTOR	UN2211			
Q518	8-729-216-22	TRANSISTOR	2SA1162-G			
Q519	8-729-421-22	TRANSISTOR	UN2211			
Q520	8-729-216-22	TRANSISTOR	2SA1162-G			
Q521	8-729-421-22	TRANSISTOR	UN2211			
Q601	8-729-232-69	FET	2SK208GR3			
Q602	8-729-230-49	TRANSISTOR	2SC2712-YG			
Q603	8-729-209-15	TRANSISTOR	2SD2012			
Q604	8-729-232-69	FET	2SK208GR3			
Q605	8-729-216-22	TRANSISTOR	2SA1162-G			
Q606	8-729-141-83	TRANSISTOR	2SB1094-LK			
Q607	8-729-230-49	TRANSISTOR	2SC2712-YG			
Q608	8-729-216-22	TRANSISTOR	2SA1162-G			
Q609	8-729-216-22	TRANSISTOR	2SA1162-G			
Q610	8-729-230-49	TRANSISTOR	2SC2712-YG			
		< RESISTOR >				
R117	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R120	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R121	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R123	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R124	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R127	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R128	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R131	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R132	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R135	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R136	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R139	1-259-995-11	CARBON MELF	1K	2%	1/8W	
R201	1-259-983-11	CARBON MELF	100	2%	1/8W	
R202	1-260-032-11	CARBON MELF	1M	2%	1/8W	
R203	1-259-992-11	CARBON MELF	560	2%	1/8W	
R204	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R205	1-247-751-11	CARBON	820	5%	1/2W	
R206	1-259-989-11	CARBON MELF	330	2%	1/8W	
R207	1-259-983-11	CARBON MELF	100	2%	1/8W	
R208	1-259-983-11	CARBON MELF	100	2%	1/8W	
R209	1-260-010-11	CARBON MELF	15K	2%	1/8W	
R210	1-259-991-11	CARBON MELF	470	2%	1/8W	
R211	1-247-761-11	CARBON	5.6K	5%	1/2W	
R212	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	
R213	1-260-010-11	CARBON MELF	15K	2%	1/8W	
R214	1-259-987-11	CARBON MELF	220	2%	1/8W	
R215	1-247-739-11	CARBON	100	5%	1/2W	
R216	1-259-983-11	CARBON MELF	100	2%	1/8W	
R217	1-259-980-11	CARBON MELF	56	2%	1/8W	
R218	1-259-980-11	CARBON MELF	56	2%	1/8W	
R219	1-249-415-11	CARBON	680	5%	1/4W	
R220	1-259-986-11	CARBON MELF	180	2%	1/8W	
R251	1-259-983-11	CARBON MELF	100	2%	1/8W	
R252	1-260-032-11	CARBON MELF	1M	2%	1/8W	
R253	1-259-992-11	CARBON MELF	560	2%	1/8W	
R254	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R255	1-247-751-11	CARBON	820	5%	1/2W	
R256	1-259-989-11	CARBON MELF	330	2%	1/8W	
R257	1-259-983-11	CARBON MELF	100	2%	1/8W	
R258	1-259-983-11	CARBON MELF	100	2%	1/8W	
R259	1-260-010-11	CARBON MELF	15K	2%	1/8W	
R260	1-259-991-11	CARBON MELF	470	2%	1/8W	
R261	1-247-761-11	CARBON	5.6K	5%	1/2W	
R262	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	
R263	1-260-010-11	CARBON MELF	15K	2%	1/8W	
R264	1-259-987-11	CARBON MELF	220	2%	1/8W	
R265	1-247-739-11	CARBON	100	5%	1/2W	
R266	1-259-983-11	CARBON MELF	100	2%	1/8W	
R267	1-259-980-11	CARBON MELF	56	2%	1/8W	
R268	1-259-980-11	CARBON MELF	56	2%	1/8W	
R269	1-249-415-11	CARBON	680	5%	1/4W	
R270	1-259-986-11	CARBON MELF	180	2%	1/8W	
R301	1-259-983-11	CARBON MELF	100	2%	1/8W	
R302	1-260-032-11	CARBON MELF	1M	2%	1/8W	
R303	1-259-992-11	CARBON MELF	560	2%	1/8W	
R304	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R305	1-247-751-11	CARBON	820	5%	1/2W	
R306	1-259-989-11	CARBON MELF	330	2%	1/8W	
R307	1-259-983-11	CARBON MELF	100	2%	1/8W	
R308	1-259-983-11	CARBON MELF	100	2%	1/8W	
R309	1-260-010-11	CARBON MELF	15K	2%	1/8W	
R310	1-259-991-11	CARBON MELF	470	2%	1/8W	
R311	1-247-761-11	CARBON	5.6K	5%	1/2W	
R312	1-260-002-11	CARBON MELF	3.3K	2%	1/8W	
R313	1-260-010-11	CARBON MELF	15K	2%	1/8W	
R314	1-259-987-11	CARBON MELF	220	2%	1/8W	
R315	1-247-739-11	CARBON	100	5%	1/2W	
R316	1-259-983-11	CARBON MELF	100	2%	1/8W	
R317	1-259-980-11	CARBON MELF	56	2%	1/8W	
R318	1-259-980-11	CARBON MELF	56	2%	1/8W	
R319	1-249-415-11	CARBON	680	5%	1/4W	
R320	1-259-986-11	CARBON MELF	180	2%	1/8W	
R321	1-247-751-11	CARBON	820	5%	1/2W	
R322	1-249-658-11	CARBON	240	5%	1/2W	
R351	1-259-983-11	CARBON MELF	100	2%	1/8W	
R352	1-260-032-11	CARBON MELF	1M	2%	1/8W	
R353	1-259-992-11	CARBON MELF	560	2%	1/8W	
R354	1-259-999-11	CARBON MELF	2.2K	2%	1/8W	
R355	1-247-751-11	CARBON	820	5%	1/2W	
R356	1-259-989-11	CARBON MELF	330	2%	1/8W	
R357	1-259-983-11	CARBON MELF	100	2%	1/8W	
R358	1-259-983-11	CARBON MELF	100	2%	1/8W	
R359	1-260-010-11	CARBON MELF	15K	2%	1/8W	
R360	1-259-991-11	CARBON MELF	470	2%	1/8W	
R361	1-247-761-11	CARBON	5.6K	5%	1/2W	

MAIN

Ref. No.	Part No.	Description			Remark
R362	1-260-002-11	CARBON MELF	3.3K	2%	1/8W
R363	1-260-010-11	CARBON MELF	15K	2%	1/8W
R364	1-259-987-11	CARBON MELF	220	2%	1/8W
R365	1-247-739-11	CARBON	100	5%	1/2W
R366	1-259-983-11	CARBON MELF	100	2%	1/8W
R367	1-259-980-11	CARBON MELF	56	2%	1/8W
R368	1-259-980-11	CARBON MELF	56	2%	1/8W
R369	1-249-415-11	CARBON	680	5%	1/4W
R370	1-259-986-11	CARBON MELF	180	2%	1/8W
R371	1-247-751-11	CARBON	820	5%	1/2W
R372	1-249-658-11	CARBON	240	5%	1/2W
R401	1-259-983-11	CARBON MELF	100	2%	1/8W
R402	1-260-032-11	CARBON MELF	1M	2%	1/8W
R403	1-259-992-11	CARBON MELF	560	2%	1/8W
R404	1-259-999-11	CARBON MELF	2.2K	2%	1/8W
R405	1-247-751-11	CARBON	820	5%	1/2W
R406	1-259-989-11	CARBON MELF	330	2%	1/8W
R407	1-259-983-11	CARBON MELF	100	2%	1/8W
R408	1-259-983-11	CARBON MELF	100	2%	1/8W
R409	1-260-010-11	CARBON MELF	15K	2%	1/8W
R410	1-259-991-11	CARBON MELF	470	2%	1/8W
R411	1-247-761-11	CARBON	5.6K	5%	1/2W
R412	1-260-002-11	CARBON MELF	3.3K	2%	1/8W
R413	1-260-010-11	CARBON MELF	15K	2%	1/8W
R414	1-259-987-11	CARBON MELF	220	2%	1/8W
R415	1-247-739-11	CARBON	100	5%	1/2W
R416	1-259-983-11	CARBON MELF	100	2%	1/8W
R417	1-259-980-11	CARBON MELF	56	2%	1/8W
R418	1-259-980-11	CARBON MELF	56	2%	1/8W
R419	1-249-415-11	CARBON	680	5%	1/4W
R420	1-259-986-11	CARBON MELF	180	2%	1/8W
R421	1-247-751-11	CARBON	820	5%	1/2W
R422	1-249-658-11	CARBON	240	5%	1/2W
R451	1-259-983-11	CARBON MELF	100	2%	1/8W
R452	1-260-032-11	CARBON MELF	1M	2%	1/8W
R453	1-259-992-11	CARBON MELF	560	2%	1/8W
R454	1-259-999-11	CARBON MELF	2.2K	2%	1/8W
R455	1-247-751-11	CARBON	820	5%	1/2W
R456	1-259-989-11	CARBON MELF	330	2%	1/8W
R457	1-259-983-11	CARBON MELF	100	2%	1/8W
R458	1-259-983-11	CARBON MELF	100	2%	1/8W
R459	1-260-010-11	CARBON MELF	15K	2%	1/8W
R460	1-259-991-11	CARBON MELF	470	2%	1/8W
R461	1-247-761-11	CARBON	5.6K	5%	1/2W
R462	1-260-002-11	CARBON MELF	3.3K	2%	1/8W
R463	1-260-010-11	CARBON MELF	15K	2%	1/8W
R464	1-259-987-11	CARBON MELF	220	2%	1/8W
R465	1-247-739-11	CARBON	100	5%	1/2W
R466	1-259-983-11	CARBON MELF	100	2%	1/8W
R467	1-259-980-11	CARBON MELF	56	2%	1/8W
R468	1-259-980-11	CARBON MELF	56	2%	1/8W
R469	1-249-415-11	CARBON	680	5%	1/4W
R470	1-259-986-11	CARBON MELF	180	2%	1/8W
R471	1-247-751-11	CARBON	820	5%	1/2W
R472	1-249-658-11	CARBON	240	5%	1/2W
R501	1-216-013-00	METAL CHIP	33	5%	1/10W
R502	1-216-079-00	METAL CHIP	18K	5%	1/10W
R503	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R504	1-216-025-00	RES, CHIP	100	5%	1/10W
R505	1-216-079-00	METAL CHIP	18K	5%	1/10W
R506	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R507	1-216-001-00	METAL CHIP	10	5%	1/10W
R508	1-216-079-00	METAL CHIP	18K	5%	1/10W
R509	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R510	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R511	1-216-079-00	METAL CHIP	18K	5%	1/10W
R512	1-216-013-00	METAL CHIP	33	5%	1/10W
R513	1-216-025-00	RES, CHIP	100	5%	1/10W
R514	1-216-079-00	METAL CHIP	18K	5%	1/10W
R515	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R516	1-216-025-00	RES, CHIP	100	5%	1/10W
R517	1-216-079-00	METAL CHIP	18K	5%	1/10W
R518	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R519	1-216-017-00	RES, CHIP	47	5%	1/10W
R520	1-216-079-00	METAL CHIP	18K	5%	1/10W
R521	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R522	1-216-017-00	RES, CHIP	47	5%	1/10W
R523	1-216-079-00	METAL CHIP	18K	5%	1/10W
R524	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R525	1-216-025-00	RES, CHIP	100	5%	1/10W
R526	1-216-079-00	METAL CHIP	18K	5%	1/10W
R527	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R528	1-216-025-00	RES, CHIP	100	5%	1/10W
R529	1-216-079-00	METAL CHIP	18K	5%	1/10W
R530	1-216-065-00	RES, CHIP	4.7K	5%	1/10W
R607	1-259-987-11	CARBON MELF	220	2%	1/8W
R608	1-259-992-11	CARBON MELF	560	2%	1/8W
R609	1-259-996-11	CARBON MELF	1.2K	2%	1/8W
R610	1-216-025-00	RES, CHIP	100	5%	1/10W
R611	1-259-987-11	CARBON MELF	220	2%	1/8W
R612	1-259-992-11	CARBON MELF	560	2%	1/8W
R613	1-259-996-11	CARBON MELF	1.2K	2%	1/8W
R614	1-216-025-00	RES, CHIP	100	5%	1/10W
R615	1-259-983-11	CARBON MELF	100	2%	1/8W
R616	1-259-983-11	CARBON MELF	100	2%	1/8W
R617	1-259-997-11	CARBON MELF	1.5K	2%	1/8W
R618	1-259-994-11	CARBON MELF	820	2%	1/8W
R619	1-259-994-11	CARBON MELF	820	2%	1/8W
R620	1-259-997-11	CARBON MELF	1.5K	2%	1/8W
R621	1-260-017-11	CARBON MELF	56K	2%	1/8W
R622	1-260-017-11	CARBON MELF	56K	2%	1/8W

< RELAY >

RY101	1-755-295-11	RELAY			
RY102	1-755-295-11	RELAY			
RY103	1-755-295-11	RELAY			
RY104	1-755-295-11	RELAY			
RY105	1-755-295-11	RELAY			
RY106	1-755-295-11	RELAY			
RY107	1-755-295-11	RELAY			
RY108	1-755-295-11	RELAY			
RY109	1-755-295-11	RELAY			
RY110	1-755-295-11	RELAY			
RY111	1-755-295-11	RELAY			

Ref. No.	Part No.	Description			Remark
RY112	1-755-295-11	RELAY			
RY113	1-755-295-11	RELAY			
RY301	1-755-295-11	RELAY			
RY302	1-755-295-11	RELAY			
RY351	1-755-295-11	RELAY			
RY352	1-755-295-11	RELAY			
RY401	1-755-295-11	RELAY			
RY402	1-755-295-11	RELAY			
RY451	1-755-295-11	RELAY			
RY452	1-755-295-11	RELAY			
**********					
	1-673-057-11	MASTER VOLUME BOARD			
		**********			
		< CAPACITOR >			
C101	1-136-165-00	FILM	0.1uF	5% 50V	
		< CONNECTOR >			
CN108	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
CN110	1-691-767-11	PLUG (MICRO CONNECTOR) 6P			
CN111	1-691-765-11	PLUG (MICRO CONNECTOR) 3P			
CN113	1-691-766-11	PLUG (MICRO CONNECTOR) 4P			
CN115	1-691-766-31	PLUG (MICRO CONNECTOR) 4P			
CN141	1-691-766-41	PLUG (MICRO CONNECTOR) 4P			
		< VARIABLE RESISTOR >			
RV107	1-225-757-11	RES, VAR, CARBON (WITH MOTOR) 30X6 (MASTER VOLUME)			
**********					
	1-673-063-11	MUT BOARD			
		**********			
		< CONNECTOR >			
CN128	1-506-469-11	PIN, CONNECTOR 4P			
CN134	1-506-468-11	PIN, CONNECTOR 3P			
CN136	1-568-955-11	PIN, CONNECTOR 6P			
		< LED >			
D819	8-719-313-50	LED SEL6810A-TH12 (+6dB)			
D820	8-719-313-50	LED SEL6810A-TH12 (+12dB)			
D821	8-719-313-50	LED SEL6810A-TH12 (+6dB)			
D822	8-719-313-50	LED SEL6810A-TH12 (+12dB)			
D823	8-719-313-50	LED SEL6810A-TH12 (+6dB)			
D824	8-719-313-50	LED SEL6810A-TH12 (+12dB)			
		< RESISTOR >			
R828	1-216-033-00	METAL CHIP	220	5% 1/10W	
R835	1-216-037-00	METAL CHIP	330	5% 1/10W	
R836	1-216-037-00	METAL CHIP	330	5% 1/10W	
R837	1-216-037-00	METAL CHIP	330	5% 1/10W	
		< SWITCH >			
S802	1-570-101-11	SWITCH, KEY BOARD (MUTING)			
S803	1-571-800-11	SWITCH, KEY BOARD (CENTER LEVEL)			
S804	1-571-800-11	SWITCH, KEY BOARD (REAR LEVEL L/R)			
S805	1-571-800-11	SWITCH, KEY BOARD (WOOFER LEVEL)			
**********					

Ref. No.	Part No.	Description			Remark
	1-673-059-11	POWER BOARD			
		**********			
		< CAPACITOR >			
C602	1-128-799-11	ELECT	6800uF	20% 42V	
C603	1-128-799-11	ELECT	6800uF	20% 42V	
C610	1-119-815-21	ELECT	2200uF	20% 35V	
		< CONNECTOR >			
* CN131	1-564-243-11	PIN, CONNECTOR 6P			
* CN140	1-564-915-11	PIN, CONNECTOR 7P			
		< DIODE >			
D601	8-719-302-38	DIODE RBV-602-01			
D602	8-719-510-53	DIODE D4SB60L			
		< RESISTOR >			
⚠R603	1-219-173-51	FUSIBLE	4.7	5% 1/2W F	
⚠R604	1-219-173-51	FUSIBLE	4.7	5% 1/2W F	
⚠R605	1-219-173-51	FUSIBLE	4.7	5% 1/2W F	
**********					
	1-673-058-11	SUB VOLUME BOARD			
		**********			
		< CONNECTOR >			
CN102	1-564-510-11	PLUG (MICRO CONNECTOR) 6P			
CN104	1-691-768-41	PLUG (MICRO CONNECTOR) 6P			
CN107	1-691-768-11	PLUG (MICRO CONNECTOR) 6P			
CN109	1-691-767-11	PLUG (MICRO CONNECTOR) 6P			
		< VARIABLE RESISTOR >			
RV101	1-225-819-11	RES, VAR, CARBON 50K/50K (FRONT BALANCE)			
RV103	1-225-758-11	RES, VAR, CARBON 50K/50K (CENTER LEVEL)			
RV104	1-225-758-11	RES, VAR, CARBON 50K/50K (REAR L LEVEL)			
RV105	1-225-758-11	RES, VAR, CARBON 50K/50K (REAR R LEVEL)			
RV106	1-225-758-11	RES, VAR, CARBON 50K/50K (WOOFER LEVEL)			
**********					
	1-673-656-11	VOL LED BOARD			
		**********			
		< CONNECTOR >			
CN106	1-506-481-11	PIN, CONNECTOR 2P			
		< LED >			
D815	8-719-313-45	LED SEL6810A-TH10 (MASTER VOLUME)			
		< RESISTOR >			
R831	1-216-037-00	METAL CHIP	330	5% 1/10W	
**********					

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque ⚠ sont critiques pour la sécurité.
Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark
		MISCELLANEOUS	
		**********	
⚠CNJ1	1-559-479-11	CORD, POWER (US, Canadian)	
⚠CNJ1	1-575-953-11	CORD, POWER (AEP)	
⚠T2	1-433-651-11	TRANSFORMER, POWER (US, Canadian)	
⚠T2	1-433-652-11	TRANSFORMER, POWER (AEP)	
**********			
		ACCESSORIES & PACKING MATERIALS	
		**********	
	1-418-243-11	REMOTE COMMANDER (RM-P9000)	
	1-590-925-31	CORD, CONNECTION (AUDIO)	
	1-783-106-11	CORD, CONNECTION (S-LINK)	
	3-866-165-11	MANUAL, INSTRUCTION (ENGLISH, FRENCH)	
	3-866-165-21	MANUAL, INSTRUCTION (GERMAN, SPANISH, DUTCH, SWEDISH, ITALIAN, PORTUGUESE)	(AEP)
	4-981-643-01	COVER, BATTERY (FOR RM-P9000)	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.	Les composants identifiés par une marque ⚠ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

99C0564-1
Printed in Japan
Published by Quality Assurance Dept. (Shinagawa)